THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

Perfect Agriculture is the true foundation of all trade and industry.—Liebig.

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Large Dairy Establishments of London.

Having read of late with much interest in the Eastern Agricultural papers, an account of various well cultivated farms, I am induced to think an abridged description of some of the great "lactaries," as they are fashionably called, of the old country, from notes taken several years since on a tour with the late Dr. Ratcliff, the excellent and efficient secretary to the "Farming Society of Ireland," will be received with some interest by your readers, and it possibly may be also instructive. My observation convinces me there is much in their management that could be well and profitably adopted by our dairymen in this country.

The two largest dairies in the world, containing the greatest number of cows giving milk at the same time in the same establishment, are in London, situated near and within sight of each other at Islington, formerly a part of the suburbs, but now a well built and densely populated portion of that great city; the one established more than half a century ago by the late Mr. Rhodes, and still conducted by his sons; the other established about the same time by the late Mr. Laycock, and now in the possession of his sons also.

Rhodes's, which I shall first describe, is the most complete of the two. The number of cows now kept there, varies from seven hundred up to nine hundred. Mrs. Rhodes, who, after her husband's death, took the whole management of the concern for some years upon herself, told me that she several times attempted to have one thousand cows milked, but that the number was never completed in the morning; that before night death or some other accident occurred amongst them, to prevent her accomplishing that desire. The ground on which the buildings are placed is a slope of some three or four acres fronting the east. The sheds run with the slope for the drainage and more easily wheeling off the manure, as well as for supplying water for the cows, through small cast iron troughs, which are fixed in the walls at the heads of the cows, in such a manner that one trough may be supplied from the other the whole length of the house.

The sheds are twenty-four feet wide and ten feet high; tiled roof, with rising shutters for ventilation; and panes of glass glazed into cast iron skeleton tiles for light. The floor has a slight fall to a gutter along the centre; a range of stalls, each seven

and a half feet wide for two cows to stand in, runs along the sides, to which they are fastened by chains and rings running on upright iron rods in each corner. A trough, formed of Welch slate bedded in cement, its upper edge eighteen inches from the ground, is fixed at the head of each animal to hold its food. The sheds are placed adjoining and parallel to each other, with openings in the walls opposite each cow, one foot wide and four feet high, in which is placed the iron trough to contain the drinking water, calculated to serve two cows in different sheds, but opposite to each other, which water is supplied from one large cistern by pipes; each iron trough has a wooden cover, which is shut down during feeding time, to prevent the water being dirtied. At the upper end of the sheds is the dairy, consisting of three rooms; the one a measuring room, where all the milk that is sold and goes out is first measured; the other a scalding room, with boiler and fire place; and the third a room where all the surplus milk is strained up and set away for cream and butter. At the lower end of the sheds are two yards surrounded by sheds also, the one for fattening the cows off when they become dry, and the other for store and breeding pigs. The pigs consume the skim milk remaining on hand, which is kept in a well made of brick laid in cement, twelve feet deep and six and a half in diameter, in which it soon becomes sour, and then fed to the pigs, as it is well known to be more nourishing when given in that state, than when sweet. The principal stock of pigs are breeding sows, as the sucking pigs sold for roasting are found to be much the most profitable. The dung is all emptied into a pit for that purpose, off a platform at the bottom of the yards. Within the last ten years there have been constructed in the rear of the sheds several large pits 10 feet wide, 12 feet deep, and 20 feet long, made of brick, bedded in cement, into which are packed several months' supply of brewers and distillers' grains, which form the chief food for the cows, and which can only be had during the winter months. The grains are firmly *tramped* into those pits, and each layer of about one foot in thickness is well salted; when filled, the top is covered over with boards, and on those is put a thickness of earth, compactly beaten down, sufficient to perfectly exclude the air as well as the frost. Grains packed in this way have been opened in four or five years, and found to be fresh and good food, and as eagerly eaten by the cows as those that had just been carted in from the brewery. There are also on the premises a large stock yard, sheds, and pits for roots and straw, a large room for cutting hay and clover into chaff, cart-sheds, stables, a neat and spacious counting-house, with a large well ventilated room over head, containing several iron bedsteads, with hair mattrass and pillow to each, where the regular work-hands belonging to the establishment, who are single men, sleep.

The cows in this establishment are all bought newly calved in the cow market held in Islington every Monday. They are kept as long as they continue to give *not less than two gallons of milk a day*, and are then fattened off for the butcher on oil cake, grains, and cut clover hay. All breeds are to be found here to some extent, but the Short-horns are preferred, and are greatly in the majority; they are generally found to be more abundant milkers, the shortness of their horns, too, admits of their being placed closer together, and another reason is because this breed is more frequently brought to market than any other. The Ayrshire breed was tried to some extent, and highly approved, as giving very rich cream, fattening in a very short time when they left off giving milk, and particularly for producing a quality of beef which sold much higher than that of the Short-horns; but the difficulty in procuring this breed was so great that they abandoned the idea of keeping them. The length of time during which a cow, treated as in this establishment, continues to give milk, varies from six months up to two years; the large majority overgoing twelve months.

The treatment in this establishment differs from that in most others. The cows are *never untied* during the whole time they remain in the house, having clean fresh water to drink constantly before them. They are kept very clean; the sheds are well ventilated by the openings in the roofs, which is certainly far preferable to the usual horizontal entrances for air, by holes through the side walls. The principal food of the cows, as in all other London dairies, consists of grains, that is, malt after it has been used by the brewer or the distiller; distillers' wash, which is the remainder after distillation of a decoction of ground malt and oaten meal, is also given to the cows, but more frequently to those that are fattening, than to such as are in milk; the average price of brewers' grains is about four pence, or eight cents per bushel; distillers' grains, on account of the meal which they contain, about double, or sixteen cents per bushel; the wash usually sells at six pence, or twelve cents for thirty-six gallons. Salt is given at the rate of two ounces to each cow daily in this establishment, mixed with the grains given

before milking, at three o'clock in the morning and about two o'clock in the afternoon. A portion of green food or roots is supplied alternately with the grains, and in winter, when tares or green grass cannot be procured, after the potatoes, turnips, or mangel wurtzel have been eaten, a portion of hay is given.

The produce of Rhodes's dairy is entirely milk and cream for private families and for public hospitals. A number of public institutions are supplied directly from this dairy by contract; private families are supplied by milk dealers, who have what is called milk-walks, that is a certain number of customers whom they supply twice a day; they are thus enabled to ascertain the average of what their customers require, and they contract with Messrs. Rhodes for this average. The latter calculate the number of cows sufficient to give the dealer the supply wanted, and this number the dealer undertakes to milk twice a day, at three o'clock in the morning and at three o'clock in the afternoon. The milk is measured to the dealer, and should he have milked more than his quantity, it remains with the dairy; but should the cows be deficient in quantity, it is made up from the milk of other cows milked on account of the contracts of the establishment. As the supply of the cows and the demand of the dealers is constantly varying, large quantities of milk remain on the dairyman's hands, frequently as high as seventy to eighty gallons, which is strained up in shallow earthen vessels for cream, the cream is churned, the butter sold, and the skim-milk as well as the buttermilk is put into the milk well for the pigs.

The management of the whole is committed to three persons: a clerk, who keeps the books, collects the debts, and pays and receives all moneys; a man who superintends the feeding and treatment of the stock, and who has the general care of the premises; and a woman who measures the milk to the dealers, and superintends the dairy. The cows are all purchased and sold by a regular salesman.

Laycock's dairy is also at Islington, nearly on the opposite side of the way to Rhodes's, but stands on a greater number of acres. The number of cows kept in Laycock's, is about the same as that kept by Rhodes; but in treatment they differ some little. I will notice only those particulars in which this establishment differs from Rhodes's. The cows are fed in the same way, with the exception of not getting any salt on their grains, but the hay is salted when put in the rick. They are turned out once a day to drink from troughs in the yards, remaining out from half an hour to three hours, according to the weather and season of the year; from the end of June till Michaelmas, the cows are turned into the fields from six o'clock in the morning until eleven, and from about two o'clock in the afternoon until about three the following morning. The remaining hours they are in the sheds for the purpose of being milked. The cows in this establishment are, on an average, kept in use longer than in Mr. Rhodes's; those which become dry are fattened in the same way, with the addition of boiled flaxseed, which is found to be a valuable assistant. The mode of using it was to me quite novel, as was its use at all for the purpose of fattening; it is boiled in a common boiler, and when reduced to a pulp let out into large wooden cisterns by tubes, where it was mixed with clover chaff roughly cut, and sometimes with grains; and when cool given to the cows, who eat in this way with great avidity. In this establishment those cows which are good milkers, are allowed to take the bull, for which purpose eight bulls were kept on the premises. The usual period of keeping the cows is from four to five years; the calves are sold in Smithfield cattle market, the market next after they are calved, to those who make it a business to take them to the country and fatten them for the butcher. There are three extensive farms belonging to this establishment, but a few miles distant, at one or other of which the cows in calf are kept when dry. The hair of the tails is kept closely trimmed off, to prevent the risk of dirtying the milk, and their bodies are curried over once every day. The pigs, in addition to sour milk, get also ground linseed and grains.

In addition to this dairy establishment, Mr. Laycock has a series of enclosed yards, about half an acre each in size, with open sheds sufficient to shelter from eight thousand to nine thousand head of cattle, which are appropriated to taking in stock for the nights previous to the days on which Smithfield market is held, which are on Monday and Friday of every week in the year. For this purpose the situation is admirably adapted, lying on the great North road, and being within a short and straight drive of the market, which, singular enough, is situated in the very heart of the most thickly populated part of that immense city. Those layers and this dairy establishment may be considered as a central farm-yard to the three hay farms which they amply supply with immense quantities of the finest manure for top-dressings.

The whole is under the management of the two brothers, assisted by a clerk and a

very active dairymaid. The proprietors of those, the two most extensive milk establishments in the world, are near and intimate friends and neighbours from their birth, are on the best possible terms, and have as free recourse to either establishment as though they belonged to the same person; they frequently compare notes as to the management and expenses, and they both still rigidly adhere to their own particular management, each contending for his superiority and offering to prove it by a reference to their books. All I can say is, that both are managed with great care and attention, systematized in every department; they have been carried on successfully and profitably for more than half a century by the fathers, and subsequently by their sons; and I have little doubt that, in a century from now, whoever lives to see it, will find the same successful operation, and both under the management of the great grandchildren or immediate descendants of the original founders.

The Metropolitan Dairy is the next largest establishment of the kind in London; it is situated on the Edgeware road—the northwestern suburb of the city—and was founded some twenty-five years since by the late Mr. Rhodes. It was sold by him some few years after, to one of the bubble companies of that day, from which its present name is derived. By them it was sold to Mr. Wilberforce, and is now his property. It stands on about one acre of ground, and is calculated to contain about four hundred cows. The cow-houses are in parallel ranges, twenty-four feet wide, and side walls eight feet high; the space allowed here for each cow is three feet nine inches, and the greater number of the cow houses are without stalls. As in Mr. Rhodes's establishment, the cows here are never untied, except to remove them to the fattening sheds or to send them to the country to remain till calving time. A cow, so treated, seldom produces more than two calves—remaining, after each calf, an average of 18 months in milk.

The cows are milked at three in the morning and two in the afternoon, and the milk disposed of to dealers as before described. The food is principally grains, which, instead of being kept in pits in the open air as at Rhodes's, are preserved in the cellar of a large building about 14 feet deep, and are covered, when packed down, to the depth of one foot with cow-dung, to protect them from the influence of the air. Dry hay is seldom given in this establishment, the chaff of clover hay being always mixed with the grains or wash. The cows are never turned out to water, but from a large cistern, pipes are conducted to every cow house, and at certain hours each day, the water is turned into the manger, which is on a perfect level, and it runs slowly past each cow, so that she drinks at pleasure. When any cow gets sick, she is bled, and is purged by giving her one pound of *epsom* salt, with two ounces of flour of sulphur, and an abundance of warm water. The mode of treatment seldom or never fails. Four bulls are kept for the cows, and, as they become dry or nearly so, they are sent out to a grass farm till calving time. The quantity of salt given the cows in their food here, does not exceed one ounce daily, on account, as they assert, of its drying quality, a complaint I never heard made but in this establishment, and with which I cannot concur. The manure of this establishment is disposed of in a singular and interesting manner—all the fluid part is discharged by sewers into a large brick cistern laid in cement, and sold by the hogshead to the hay farmers in the neighbourhood, to manure their meadows with, which is done with the common watering-cart used for the streets. The solid manure is compressed into small squares or cakes by a hydraulic press, and is all shipped to Norfolk and to Yorkshire; the computation is that a two-horse cart-load of dung is reduced to the size of a cubic foot by this means.

There are many minor dairy establishments in and about London, none of which are worthy of notice, save one at Little Acton, about five miles from Hyde Park corner, under the sole management of a maiden lady, Mrs. Cook, and stands on a farm of two hundred acres, the whole of which is devoted to meadow. There are two hundred and fifty cows in three sheds, standing head to head, with a passage of five feet between the troughs. The cows here are never untied except for about two months in the autumn, when they are let out after each milking, for about two hours, to fill themselves off the after grass. Water is supplied to them in their troughs twice a day, through pipes from a fine spring adjacent. Grains, with roots and other green meat, are the principal food of the cows; and Mrs. Cook considers it much more economical to turn the entire of her farm to meadow, and with the extra produce to purchase the other food wanted for the cows, rather than multiply her expenses and increase her own trouble and cares, by placing it under a system of agricultural courses. There is no doubt but Mrs. Cook's establishment, for its size, returns, under her peculiar management, a better profit than any other in London or its neighbourhood. Her

cows are all milked by her own men at 2 o'clock every morning, and 2 every afternoon, and the produce sent in six gallon block-tin cans, on a superior two-horse "C" spring carriage,—with scarcely any motion to it—to a West-end milk-dealer, in Edward street, Portman square, who contracts for the whole. This establishment is characterized beyond any other I have ever seen, by its great neatness and cleanliness, both as regards the premises, the cattle themselves, and all those who attend upon them.

It is worthy of remark that, in no instance, is there to be found a milk wagon used for the delivery of the milk to the families; it is always carried in tin cans, suspended from a wooden yoke, that fits over the shoulder, by either women or men, who generally distribute in this way from 20 to 24 gallons within two hours. It is considered, and with some truth too, that jolting the milk in wagons has an injurious effect upon it, certainly tending to make it sour and rendering it entirely unfit to set for cream. This mode of delivery causes the milk dealers to have a better understanding amongst themselves as to the distribution of their customers, the same person being generally found to serve with milk every house that takes any in the same street, and consequently rendering the labour much less. —*Louisville Journal.*

For the Farmers' Cabinet.

On early Autumnal Ploughing.

Mr. Editor,—Your correspondent, H. Cazier's experience in early autumnal ploughing, for the destruction of those pests of our corn crops, the heart, wire, and cut-worm,* is but that of hundreds of our practical men; yet I should not suppose it quite necessary for the success of the practice, to confine it strictly to the month of September; the early part of October, one would suppose, would be found about as effectual. At the same time, your personal experience, Mr. Editor, goes to prove, that a "very late autumnal ploughing," any more than a "fourth month's" turning would be of no avail. I remember once paying a visit to Mr. H. Eachus, of Delaware county, when he was plastering his corn in the hill on a large field, that had been turned for experiment, one half in early autumn, and the other in spring, and take upon me to say, that on the spring ploughed sod there were twenty-five cut-worms for one, on that autumn-turned; and many other cases might be cited as proof of the general fact; amongst the rest, that of him who confessed "he did not see any other advantage in early autumnal ploughing, than the destruction of the cut-worm!" I remember, at the time of my visit, dropping a line on the subject, which appeared in the Cabinet, vol. 6, page 253, over the signature of C. W., in answer to a correspondent, Mr. Johnson, page 231; and which those of your readers who have that volume may turn to:—may I be permitted to add, at the present moment, it appears to me about all that need be said on the subject.

I there observe, "In the way in which ploughing is generally performed, it will oftentimes be found of little avail, one half the earth remaining unremoved after the passage of the plough," and the time that has since elapsed has only added to the conviction, that success depends very much on the manner in which the turning of the sod is accomplished; first, in the care bestowed, and next, in the proper construction of the plough used for that purpose; for I consider the *cutting plough* in common use, exceedingly improper; my opinion being, that the eggs of the worm are deposited in the earth, and that they are destroyed by a winter's *exposure;* to cut smoothly, therefore, the bottom and side of the furrow-slice and to lay it gently over without breaking, at an angle of 45 degrees, or thereabouts, is, in a great measure merely to transplant the eggs; and where, in such a case, one is destroyed, one dozen may be preserved unmolested, to come into existence in the spring! The plough, therefore, that pulverizes the land, turning it topsy-turvy, and throwing it up high and dry and broken into small particles, shaking, as it were, the eggs out of their envelope, must be the best adapted for this, as for that other purpose, the exposition of the greatest number of its particles to amelioration during the frosts and thaws of winter. And I must be permitted to add, from long experience and practical information, I know of no plough so proper for these purposes, as the Prouty or Centre-draught, the irons of which being cast on the self-sharpening principle, constitute it rather a *breaking* than a *cutting* plough; the resistance offered being just sufficient to render its operations a spade-labour business, which is the perfection of good husbandry.

In conclusion I would observe, the crops of Dr. Noble, Bryan Jackson, and John Jones, the present year, are after the Centre-draught plough, which I consider "praise enough for one day."

C. W.

New Castle co. Del., July 26th, 1845.

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* See page 370, last No. of the Cabinet.

For the Farmers' Cabinet.

The Late Frost.

To the Editor.—In the Cabinet for the present month, page 375, we find some account of the disastrous frost which occurred on the 31st of May last, and the writer intimates a desire to be informed of the result in other portions of the county. In compliance with the intimation of your Chester county correspondent, I send you the result of my observations as regards the effect of this untimely visitation in this neighbourhood. They agree in almost every respect with those mentioned in the statement above referred to.

I was in Philadelphia when it occurred, and leaving the city a few days after by the Downingtown rail-road, I did not, by the rapidity of conveyance, have an opportunity of examining the effects of the frost on the passage. My impression was, that but little injury was experienced in the vicinity of the city.

On arriving at home, about fifty miles N. W. from Philadelphia, and about four miles from Church-town, the Conestoga creek running through the farm, I was struck with the appearance of the corn, which was almost entirely cut down to the ground. The leaves wilted and the verdure entirely changed to a brownish hue; a great part appeared as if scalded, many of the hills being so much frozen that the plants never recovered. After some days the young corn appeared to show symptoms of vitality. The upper ends of the plants being quite dead, coiled their leaves about the young and tender part, and retarded the growth of the same, which I endeavoured to relieve by clipping the ends of the adhering leaves, and I think it had a good effect. The corn has since grown pretty well, but owing to the cold and dry season previous to the frost, and that being of so killing a nature, the crop will not be so full and large as in ordinary seasons.

With regard to the wheat crop, it fared much worse than the corn. The frost struck it with such intensity, that of about 80 acres of most promising grain on this farm, which might have yielded about 2000 bushels, we shall thresh scarcely 200 bushels of good wheat. Part of this wheat was Mediterranean, and part the Red-bearded. The Mediterranean was not so much affected by the frost, as the other kind, being sowed somewhat earlier, and the field being somewhat more elevated. Along the flat and level ground the grain was entirely killed. Where a shade tree occurred, there was a visible protection from the effects of the frost, and where the ground rose to any thing like an elevated ridge, the grain was not much injured. Along the water courses, and flat damp places, the wheat has suffered most. On hilly, gravelly, and sandstone lands, neither corn nor wheat has been much injured by the frost. The limestone vallies in grain as well as grass, have suffered most severely. Owing to the adverse season, the crop of hay will be very short in this part of Lancaster county.

The tender vegetables and delicate plants of the garden were almost all destroyed by this unseasonable frost. Early potatoes, which might have been in maturity about the middle of June, after the frost struck them never grew; and the small potatoes gathered, were about the size of marbles. It is fortunate for the country that the effects of this disastrous frost have not been general. A great part of this county had excellent crops of wheat, which will make up for the deficiency in others. I understand some of the farmers who had housed their frost bitten grain, or rather straw, have been obliged to take it out of their barns, as it began to heat and ferment. B.

Spring-grove Farm, July 21st, 1845.

Society of Land Improvers.

The subject of the allotment and improvement of waste lands, is one which has at various times deservedly claimed a share of public attention. Numerous reports have been published descriptive of the beneficial results which have followed the application of the system in different localities; in some, the success has been complete—in others the experiment has partially failed, owing to the incompetence of the parties on whom the management devolved, or to the unwillingness of the labourers to undergo the requisite exertion. Ireland is a country possessing, as is generally allowed, peculiar claims upon active philanthropy; and among the schemes suggested or undertaken for her improvement, none have met with so favourable a reception, as that for the reclamation of the neglected and uncultivated portions of her soil, conducted by an institution called the Irish Waste Land Improvement Society.

This Society, it appears, with the Earl of Devon at its head, was formed in 1836, and being incorporated by act of Parliament, it obtained the possession of many thousands of acres of waste land—mountain, and peat moss or bog—on leases of 99 years, at a very low rent, averaging about 1*s.* 10*d.* per statute acre. The plan of the company was not to speculate in farming themselves, but re-let the whole in farms of 15 to 25 acres,

on leases of 31 years, at a rent varying from 4*s.* to 10*s.* per acre, undertaking at the same time to make all the roads, main drains, and fences, at their own cost. In the present day, when almost every town has its improvement society, which does little else than talk, it is cheering to find that there is at least one institution, which actually works —really tries to accomplish what others only are contented with projecting.

Nor has this Improvement Society acted rashly in its operations; great caution has been employed in every step of its progress. The first purchase was a small mountain tract in Galway; the second in the county of Limerick; the third in Sligo; and lastly, a wild district in Connemara, comprising more than 7000 acres, was taken about three years since. It is a favourable feature of the proceedings, that the calls upon the shareholders have been made at long intervals; no more than £8 per share, has been paid up to the present time. The aggregate amount received, about £25,000, has enabled the Society to place the four estates, comprehending 10,000 acres, in a forward state of cultivation. The estate of Gleneask, in the county of Sligo, consists of 5699 statute acres, and is beautifully situated on the south-eastern slope of the Slievh Gauff mountains, commonly known as the Lurgan Hills. Their height is about 1000 feet above the level of the sea, and they overlook a valley nearly seven miles in length, watered by numerous mountain streams. The soil is described as "pure unmitigated *peat-bog*, from two to eight feet in depth, with a substratum of clay or gravel." A portion of the upper slopes is laid out in pasture, well adapted for rearing the Highland breed of cattle, of which the Society possesses a thriving herd. The steward of the estate, Mr. Lermont, is an industrious North Briton. With his wife and two daughters, he occupied the house adjoining the model farm, where, upon a piece of bog reclaimed within two years, were growing as fine Swedish turnips as could be found in the fertile barony of Cork. Near the entrance gate, standing on the Society's land, are several whitewashed buildings; these are a police station-house, porter's lodge, chapel, and national school. Proceeding onwards along a fine wide gravelled road, the plan of the allotments becomes visible, marked out by open drains and green banks of sod, crowned by clipped hedges of furze. The dwellings of the servants are built facing the road, with which they communicate by narrow walks, bordered with the alder and Lombardy poplar. The houses of the tenants are 30 feet long, 13 feet wide, and 8 feet high; they are built of stone, and divided into two rooms, thatched and glazed; the cost of each to the Society being £16 5*s.* The expense is greater than it otherwise would be, owing to the great depth to which it is necessary to dig for the foundation, which must be carried through the bog. The company do not, however, build for every tenant; they prefer to induce the settler to build for himself, giving him assistance from their supply of timber. This plan has been found to attach the occupant to the soil more securely than if he had been provided with a dwelling, while at the same time it serves to quicken and stimulate his exertions for the improvement of the property. The Society offers powerful inducemants in furtherance of this object: it gives a prize of £2 for every acre of reclaimed land, which is equal to four years' rent at the higher rate. This plan is found to succeed, as, by the improved system of drainage, the unproductive bog soón becomes a flourishing field.

On every farm held by the smaller occupiers, turnips and clover were growing, and in many instances rape and vetches. The potatoes—lumpers, Peelers, and Americans —were everywhere excellent, and the presence of two or three head of cattle on each holding, showed that the accumulation of manure was certain. The main drains are made from four to six feet wide at top, two and a half to three and a half at bottom, and from three to five feet in depth; the thorough drains are two feet wide at top and bottom, with a small channel in the centre from six to eight inches in width, covered closely by a sod turned the green side downwards. The firmness of the soil is such, that the drains require no lining except in the clayey ground, where they are filled with stones. After draining, the surface is burned and limed, when two successive crops of potatoes are taken, then a crop of Aberdeen turnips, followed by oats laid down in clover. Recent analysis by Professor Kane, has shown a rich bed of marl in the neighbourhood to contain some of the most important elements which can be applied to the fertilization of peat. In some cases turnips have been raised as a *first* crop, thus proving the productive nature of the land. It is, however, recommended in preference to this method, to follow the plan of culture above described. Much difficulty was experienced in persuading the ignorant Irish cotter to take the necessary steps to insure a good crop of turnips. Mr. Lermont says, "When I insisted on the plants being thinned out to nine inches distance, and showed them the distance by pulling up a few myself, it was

like pulling the hair out of their heads—some actually cried!"

The indispensable necessity of cleanliness, and the absence of all extraneous lumber in the dairy, to say nothing of the filthiness of keeping animals in the dwelling-house, are points strongly impressed upon the minds of the tenants by the managing director and the ever-watchful steward. Those who prove refractory are debarred from participating in the prizes which are given annually for draining, green crops, cattle, cleanliness, &c. Great emulation is excited among the tenantry by these premiums, of which the agricultural are paid in money, the household in kind; and a gown or shawl to the "good wife" is found more effective than the purchase money, where shops are so distant. The personal appearance and costume of the female peasantry in this mountain district, contrast strikingly with those of Munster: small regular features are much more frequent; and the slovenly flounced cap is never seen but on married women and the aged; spinsters wear their hair exposed, and in neat order. The Sunday appearance of both males and females, is not only respectable but picturesque, reminding one of the Alpine Sabbath in more favoured lands. Scarlet and bright blue are the favourite colours of the females.

Father Matthew has not overlooked Gleneask; nearly all the tenants are "teetotalers;" and illicit distillation, once so prevalent in the district, is now of rare occurrence.

The unavoidable difficulties of a new settler during the first year are most considerably met by the admirable system of Colonel Robinson, the director, which provides him with the means of subsistence by employment, in making the main drains and fences by his own allotment, thus rendering him independent of the land, until it is made, by his own labour, to produce a crop. The rate of wages is 8*d.* per day: 10*d.* per perch is paid for the fences; 4*d.* per perch for the larger main drains, and 2*d.* for the smaller. Some good attempts at a dairy have been made by several of the small holders, and Miss Lermont is indefatigable in her efforts to instruct them in the making of cheese, storage for which is provided at the farmery.

The want of capital is often talked of as the cause of defective farming among the occupying tenants in Ireland; but what would capital avail them without the knowledge of its application? whereas personal instruction and encouragement would make their present capital—their labour—produce fourfold. Agricultural societies may do much for those who are able to read, and are otherwise more enlightened than their neighbors: but what have they effected, comparatively, for the cotter tenant, unable to read—perhaps, like some of the Gleneask tenants, unable to understand English? He may doubtless see the *results* of good farming at the annual shows, and, if he can afford it, hear the speeches and dissertations at the agricultural dinners; but will this induce him to thorough drain, subsoil plough, or sow turnips? or, if he were willing to learn, instruct him how the work should be done? Practical, sound instruction, is the only mode suited to the small farmer. It is not only necessary to tell him, but to show him how the work is to be done: the stimulants of precept and reward are insufficient—personal instruction, encouragement, and superintendance, are wanting. To supply those wants, is one of the main subjects of the Irish Waste Land Improvement Society. Col. Robinson is not satisfied with the ordinary statement of rent and arrears, but examines personally every cottage, goes over every acre of reclaimed land, directs, corrects, and encourages. A cheerful recognition, a good humoured reproof, a friendly jest or encouraging remark, play upon the surface of a well considered system of moral and physical improvement. Human nature, in whatever grade, requires some stimulant for the development of her faculties; and whether it be wealth or power, prize or honour, or even the lowly stimulant of the poor Irish cotter—mere subsistence—where the pressure is not felt, the machinery becomes inert, and the "time enough" and "well enough" assume the places of labour and activity.

This no doubt involves labour and agricultural knowledge on the part of those entrusted with the management of estates; but men qualified to undertake such duties are not wanting; and how gratifying must be the sensations of that landlord who can point to a large tract of reclaimed mountain, or a recent moor teeming with profitable vegetation, and say—These once sterile acres afford now food and shelter to a thriving peasantry, blessing, like the quality of mercy—

"Both him that gives, and him that takes."

Chambers' Journal.

Fine Cow.—A late number of the *Massachusetts Ploughman* gives an account of a native cow, belonging to the Editor, which gave recently fifteen and a quarter pounds of butter from the milk of one week. The quantity of milk was not near so large as that of some others, it being but 108½ qts. in the week. Her live weight is about 950 lbs.

From the Southern Cultivator.

Bread-stuffs—A Contrast.

The knowledge of a disease is said to be half a cure. We cheerfully send abroad the following plain statements, with a hope that wherever they may be really applicable, they may prove advantageous.—Ed.

Any one who has occasion to visit the Northern States, observes, on returning homeward, a fact that startles him, in the difference presented to the eye, in the two sections of country. *There*, he sees an appearance of comfort; men of very moderate means live in neat houses; those of greater wealth in splendid ones; there seems to be a place for everything, and everything is in its place. *Here*, the picture is altogether different; people seem to regard their places of abode as necessary evils, and pay as little attention to making them either neat or comfortable as possible. They seem to esteem a house and its fixtures like an Arab does his tent, as something that is to be occupied for only a brief moment, and any pains and expense in adapting it to comfortable living, as an unnecessary waste of time and money. As to ornamenting the grounds around it, with trees and shrubbery, such an idea does not seem to have occurred to the occupant.

There, if you have occasion to stop at a house in the country, you find at the table food prepared properly; and butter, milk, and seasonable vegetables are set before you. *Here*, you have that perpetual dish—fried bacon, or pork, if it is winter, swimming in grease, "and nothing else," except "long *collards*" and bread. The owner may have his principal wealth in cattle, to the amount of many hundred, as is the case in some places, and if it is winter or spring, he has not an ounce of butter to offer you, and rarely even milk enough to put in your coffee.

Inquire the price of building a house *there*, and the amount is small. *Here*, the cost is so great, as to deter any one from building a good one any where else than in a large town. It would be thought extravagance to entertain the idea in the country.

There is a cause for this disparity in the condition and appearance of these two sections of the same country. What is that cause? This question has been often asked in our presence, and the answer has always involved some abstrusity wholly irrelevant to the subject, in our view of the case. Are we less intelligent than our neighbours? Has a genial sun rendered us less capable of the use of our mental faculties than they? This will hardly be admitted. The real cause, from its very obviousness, seems to have been overlooked in searching after remote ones. *It is because they produce bread and meat in abundance, and we do not.* That there are other auxiliary causes, in the way of unequal revenue laws, &c., which tend to raise one section and depress another, we doubt not; but the radical cause is the one we have stated.

In order to see its effect readily, let us suppose you have a house to build. You must have lumber, brick and lime; a carpenter is to be employed to build the house, a bricklayer to make the chimnies and plaster the walls. The sawyer asks you a price for the lumber that appears high, when taken in connection with the plenty and cheapness of water power and pine timber, but he solves the difficulty very soon, by telling you the price he has to pay for corn, to subsist himself, his hands, and his mules, which haul the stocks to the mill and the lumber away from it. Each mule, purchased from a Kentuckian, costs him $75 or $80, and the corn to feed them costs him, to assume the current rates in Macon at this date, 75 cents per bushel. It is easy to see the effect of this on lumber. The same reasons apply with the brick-maker and lime-burner, precisely. Then go to the carpenter and brick-layer, and tell them the price of building a house and a chimney, and of plastering at the North, and ask them why they cannot afford to work at the same rates. They will tell you that living is cheap at the North, it is dear here. And you have a solution of the whole mystery, and build your house at twice the cost which would be necessary, if you lived in a country where provisions were plenty and cheap.

But here the farmer turns upon us, and asks, what is to become of me if I can get but 25 cents for my corn? We answer, that with an abundance of corn at that price, and every thing else at a proportionate rate, you will live more plentifully, more comfortably and independently in every respect; yourself, and the whole face of the country and its population, from the pettifogger to the pig, inclusively, will be better off and happier. What is the difference to the farmer in dollars and cents, if he gets 25 cents for his corn, and can build a house for $400, or if he gets 75 cents, and the house costs him $1200? It is as broad as it is long, so far as cost is concerned. But as to his comfort and the general prosperity of the country, there is a great difference.

There is this essential difference in the habits of a Northern and a Southern man. *The one*, whether in Connecticut or in Georgia, if he removes here permanently, thinks in the first place of making himself,

as Baillie Nicol Jarvie says, "what he calls comfortable." Then he looks out as keenly as other men for the ways and means of getting rich, but he must be comfortable while he is doing it. Every thing must be neat and *tidy* about him. *The other*, without any systematic economy, is indifferent about the present, and lives altogether in the hope of realising a fortune in the future, when he expects to live as he pleases. And when that time arrives, habit has grown to be second nature, and as to the enjoyments of life he is no better off than when he began—"Always to be, but never blest." Frequently careless even in his personal attire, and always slovenly in the arrangement of his house, out-houses, gates, fences and grounds.

With every element of prosperity a country could ask, we of the Southern States are the most dependent on others, of any people within our knowledge; and the face of the land presents to a stranger the most poverty-stricken aspect of any that meets his eye anywhere. This is a humiliating confession from a son of the soil, "one to the manor born," but however disagreeable, it is a truth that must be known and felt by all before the evil can be obviated. We scourge our lands by continuous crops of cotton, without a year of rest or rotation, and buy everything; while others improve their lands and make everything at home they can. Not to speak of wearing apparel, and other like articles of necessary use, every one of which, coarse and fine, is made elsewhere, and is a source of drain to the industry of this section. But look on your tables and see if your meat does not come from Tennessee; look at your ploughs and see if every mule that draws them is not bought of Kentucky; even the horses which draw your carriages come from there.

Many pursue a line of policy on this subject, the very reverse of their own interests, from a mistaken idea of what their true interest is; others do so from sheer inertness and a want of reflection; some from being deluded by maxims applicable to particular situations and necessities, and not capable of general application. The Island of Malta imports all its bread stuffs, and why? Because it is a rock, and incapable from its want of soil, as well as size, to raise them. Is that the case here? England imports bread stuffs and yet prospers; and what is the reason? By her gigantic power having, through a credit system of her own, made herself the heart of the monetary world, she can display an appearance of prosperity, in despite, and not by reason, of that deficiency, in the capacity of the realm, to produce provisions sufficient for its accumulated population. Some of the West India Islands, and some plantations on the Mississippi, do not raise their provisions, but the reasons which may be good there, do not hold here. We, to be prosperous, must make bread and meat plenty and cheap. Turn the question as you will, it resolves itself into this.

J. B. L.

Macon, Ga.

Communicated for the Cabinet.

Improvement of Crops by judicious Selection.

By James Mease, M. D., Prest. of the Philad'a. Society for Promoting Agriculture. Read Nov. 3, 1841.

The following paragraph appeared in the "Examiner," of Frederick, Maryland, in the year 1840:—

"*The Rock Wheat*—Mr. Smeltzer, of the Middletown valley, who was the first person of this county to raise the Rock Wheat, informs us that at the last fall he put out about 10 bushels of that seed, which he obtained from Mr. Stonebraker of Washington county, and which now gives him a return of about 200 bushels and a little upward—being about 40 bushels to the acre, and weighing about 63 lbs. to the bushel. He is selling it very fast at $2 50 per bushel, for seed. Mr. Stonebraker of Washington county, from the two original heads which were found in a cleft of rocks, and which he obtained, raised in four sowings 168 bushels, which he sold at $3 per bushel. As far as we have heard, these 168 bushels which were put out last fall, have yielded 20 bushels for one sown, leaving now in the country 3,360 bushels of this wheat, which will no doubt be principally used for seed, and which is already scattered far and wide through the country. Thus from two heads of wheat, accidentally discovered and cultivated, what immense benefits may flow."

Mr. Smeltzer deserves the thanks of farmers for his good sense in saving the two original heads of wheat, and for his patience in continuing the propagation of the seed from them. His example ought to be followed upon every occasion when a thrifty vegetable is observed in the garden, or the field. Not a summer passes without notices in the country newspapers of Pennsylvania, of uncommonly prolific and large heads of wheat, rye, oats, or timothy grass (*Phleum Pratense*) or of immense beets, turnips, pumpkins, &c., and to the statement is invariably appended the "lengthy" and luminous commentary by the editor, "Beat This." The wonderful article is left with him, and we hear no more of it; whereas upon every such occasion the production ought to be

saved for future sowings, and the annual product carefully preserved and propagated until a crop is obtained; because the presumption is, that as "like produces like," the valuable property of the original seeds will be retained, provided they be managed properly, and thus a source of profit be obtained by the farmer, and a real benefit result to the agricultural interests generally.

In this way, Mr. Isbel, a farmer of Caroline county, Virginia, more than forty years since, from the heads of two stalks of wheat which grew very large and ripened more early than the rest of the field, introduced the wheat which long bore his name, and commanded a higher price than the other varieties of wheat generally sown in that section of country. I obtained several bushels of this wheat from the late Col. John Taylor, of Caroline county, (Senator of the United States,) and introduced it in the year 1807, into Upper Darby township, Delaware county, and sold part of the first product to the late Bernard M'Mahon, for seed. It weighed 64 lbs. to the bushel, ripened before any other wheat in the vicinity, yielded 20 bushels to the acre, and made beautiful white flour. I think I have preserved in a note book an account of the sale.

In like manner a farmer of Falls township, Bucks county, (Pennsbury Manor) Pa., about the date of Mr. Isbel's experiment, picked off two very luxuriant heads of wheat, which he perceived in his field, sowed them the same year, and the product for several successive years until he had enough for a whole field. This wheat for several years was in great demand for seed, and the flour made from it brought one dollar per barrel more than any other in the market. If I do not mistake, Mr. Ely—now retired—was the commission merchant who sold it.

Lastly, the late excellent man, and well-known improver, the late Joseph Cooper, of New Jersey, in a highly interesting paper on this very subject,—the improvement and naturalization of seeds—inserted in the first volume of the Memoirs of our society, says, that "For many years since he had renewed the whole seed of his winter grain—wheat—from a single plant which he had observed to be more productive, and of a better quality than the rest, a practice which he was satisfied, had been of great use:" he adds, "I am fully of opinion, that all kinds of garden vegetables may be thus improved, care being also taken, that different kinds of the same species of vegetables are not in bloom at the same time near together, as they thus mix and degenerate."

Dogs and Sheep.—We regret to learn that a few nights ago, Mr. Edward Payne, of Fayette county, had forty sheep killed and twenty wounded, by domesticated wolves, commonly called dogs. We understand that fifty dogs in the neighbourhood were killed in consequence.

We understand that our neighbour, Gen. Ambrose W. Dudley, has lost forty sheep this season, by dogs, and that sundry other farmers of Woodford and Franklin, have suffered seriously in the same way. About forty dogs have been caught and killed. About two hundred thousand more dogs ought to be killed in this State. The surplus dogs, over and above those which are useful, destroy enough to feed all the paupers sent here from Europe to be fed by us. We believe such dogs in Kentucky cost the country more than the expenses of government. We not only hear continually of the destruction of flocks of sheep by them, but of many excellent farmers utterly abandoning sheep husbandry because they cannot preserve their flocks from destruction by dogs. There never was a country better adapted for sheep husbandry than Kentucky; there never was a time when that branch could be made more profitable; there are hundreds of thousands of waste acres in Kentucky, admirably fit for sheep walks, but fit for little else, that would produce millions of wealth annually; but the extension of the business is a dead failure almost, because of the ravages of the dogs. When and how is this enormous evil to be remedied?—*Frankfort Commonwealth.*

Broom Corn.—The seed is excellent to fatten sheep. Albert Hibbard, of North Hadley, tells us he makes use of the seed of his Broom corn to fatten sheep: that they are very fond of it, and will fatten better on this than on Indian corn. Broom corn is raised in great quantities in the river towns, where the brooms are made up and distributed to all parts of the country. We have often raised the corn for the sake of the brush, but we have never made much account of the seed, though we think it has seldom been converted to meal for hogs. Mr. Hibbard thinks the Broom corn seed more valuable for sheep, than oats, or any grain, pound for pound.—*Massachusetts Ploughman.*

Milk.—This well-known fluid may be said to combine in itself all the organic principles and mineral substances which enter into the constitution of organized beings.

Communicated for the Farmers' Cabinet.

On the Kyloe breed of Cattle—Loss in Feeding very large Cattle for a long time.

BY JAMES MEASE, M. D.

Read before the Philadelphia Society for Promoting Agriculture, Feb. 1st, 1843.

I beg leave to call the attention of the Society to the portrait of a West Highland Heifer Kyloe, whose breed commends itself strongly to every grazier, and especially to the extensive breeders of stock in New York and the Western States.

This breed is a native of the Western Islands, and the West Highlands of Scotland, whence the stock is annually brought to the Lowlands and to Liverpool, and after being kept over winter, are turned out to pasture in the spring, and made fat by the months of August and September. It is the nature of this breed to take on flesh and fat speedily, and produces highly flavoured beef, which is much esteemed, and preferred to that of any other. I was informed of these facts many years since by a gentleman from Liverpool, and I am pleased to find them confirmed by Youatt, in his recent excellent work on cattle. Their hardy constitution enables them also to bear the severe treatment they receive during the winter in their native places, from exposure to the elements, and from scanty food.

The portrait before the Society is a fair specimen of the breed, as to form, and from the account attached, it appears that the heifer was five years old, bred in the Isle of Skye, and fed by Mr. H. Middleton, of Newton, near Darlington, in the county of Durham, measured only three feet five inches in height, and weighed upwards of 105 stone, 8 pounds to the stone, (840 lbs.)

The necessity of this breed in the United States, and the chance of the profit arising from its propagation, may be judged of from the following fact. When the Society for the Improvement of Cattle was formed in Philadelphia, in the year 1809, our President, the late no less extensive grazier than excellent man, Lawrence Seckel, mentioned to me that during the summer and month of September, good beef became scarce, owing to the large cattle of the preceding season having all been killed, and those then grazing not having reached the "sticking point;" and that a small breed was much wanted, which would supply the vacancy in the market with good fresh beef. I at once informed him of the Kyloe breed, as the identical stock, capable of fulfilling his wishes, and a premium of $100 was offered by the Society, which included the Kyloes, but no one applied for it.

The introduction of this breed, as before said, commends itself particularly to the great breeders of stock in New York and the Western States, and would pay them well for the expense incurred by any in accomplishing the useful project. From Liverpool, the passage to Glasgow is speedy, and thence to the Highlands, or to the Western Islands, no less frequent. To any one desirous of undertaking the voyage, useful hints would be given if required.

The difference in profit from feeding animals which become so speedily ripe for market as the Kyloes, and the very large cattle that require two or more years to bring them to perfection,—that is, to distend the hide with layers of fat to the utmost possible extent, and to line their interior with loads of it—is immense. In the one case, the animal is kept over winter on hay, beets, pumpkins, or other juicy food, and after four or five months grazing, is next year sold to a butcher, and the first cost returned with profit; but in the other, two or more years are required before the animal is offered for sale, and if sold, the price obtained is sometimes less than the actual cost of feed, to say nothing of the expense of attending to his or their requirements during the long process of cramming they have undergone. If left on the hands of the owner, as has happened, the outlay for feed to prevent his falling away, will require to be continued, or he must be slaughtered and sold to the best bidders for the account of the owner.

Another objection to long and over-fed animals is, that the beef is not so sweet as that of others which are rapidly brought to maturity. The first fact I heard on this point was long before I had turned my attention to agricultural concerns, and was revived in my memory when an occasion required many years after. It was of the very excellent beef made by an old dry cow, from having the exclusive use of a clover field. The secret was the rapid conversion into muscle and fat of the nourishment from which they had been derived. The inconsistency of some farmers is also strongly evinced in respect to their over-feeding, for the same man who, upon common occasions, discovers the greatest reluctance to part with a dollar, even when obviously necessary, will not hesitate to disburse most freely for an over-fed animal, which is ultimately to bring him in debt, merely for the gratification of his pride, to bring a steer to the stalls so loaded with fat, that it is difficult to find a piece sufficiently lean to eat. I do not think that any steer will pay, unless in the best of times, for more than one winter's keep, one summer's pasture, and another

winter's stall-feeding. An animal thus treated, will have his beef well marbled with fat, and no more is required by those who are to regale on it.

Having, in the fifth volume of the Memoirs of this Society, given my sentiments fully on the subject of over-feeding cattle, I shall only refer to two large animals to which my remarks will apply. The first is the ox Columbus, which was raised in Greenland, New Hampshire, and afterwards shown and slaughtered in Philadelphia, a few years since. His live weight was 4000 pounds, and, as was said at the time, did not repay the purchasers. The second was the N. J., (Salem) ox, in the year 1818, seven years old, which from his fourth year had been daily pastured and fed with corn meal, and with hay and the same addition in winter; the precise amount not stated; dead weight 2,165 pounds, rough fat 136 pounds. His portrait is on our walls, and in the fourth volume of the Society's Memoirs.

The little attention paid to the cultivation of root crops, besides potatoes, for feeding not only cattle but horses, by farmers, was mentioned and dwelt on by the members whose ample experience enabled them to speak with confidence on the economy of so doing, and of the ease with which they may be raised. No food yields a greater return, or pays better than carrots, parsnips, sugar beets, and turnips. They require to be sown in rows, for which drills may be bought at a moderate price, at the Agricultural Ware Houses in Philadelphia.

Mr. Richie, of Philadelphia county, stated that a volunteer red cherry had made its appearance on his farm, which promises to be an acquisition, as it possesses the lively acidity of the well known "pie cherry," and is *as yet* unaffected by the insect which has proved so deadly an enemy to the latter. He offered to supply grafts to the members, and will doubtless do so to others. This "new comer" here, is doubtless a variety produced from the accidental dropping of a "pie cherry," and the fact of its growth and merits lead to an expression of regret for the marked neglect of the cultivation of fruit in Pennsylvania, although it is well known that nothing on a farm pays better, or requires so little trouble. Farmers in the New England States bestow attention to fruit, and had it not been for their very abundant supply of apples during the last autumn, Philadelphia would have been deprived of a wholesome luxury. They were not only handsome in appearance, but some of great size and cheap, while those brought to market from Pennsylvania were few in number, unattractive in appearance, and dear. A farmer could not more surely provide a good revenue for an infant child, than by setting out four or five acres of the Marshal apple, or of the Rhode Island Greening, and one or more acres of the Prune Plum.

Mr. Uhler, Assistant Secretary, made a verbal statement of his analysis of the marl of New Jersey, which has done so much for the barren sands, and unproductive soils of that State, and gave the theory of the action of its component parts. At the request of the Society, he promised to produce a written article on the subject at the next meeting. The attention of the Society was early called to the operation of this marl, and knowing that in no other way than by analysis could the principle of its fertilizing property be ascertained, and the various results from its use be accounted for, Mr. Henry Seybert, at the request of the Society, made a masterly Chemical examination of it, which was inserted in the fifth volume of the Society's Memoirs. He first ascertained that it generally contained nine or ten per cent. of potash; and hence its fertilizing effects when applied to soils deficient therein. Mr. Uhler will explain its mode of action.

Dahlia.—Too richly manured a soil gives too much vigor to the stem and leaf. I raise them in soil without manure, and when they begin to bud, I cover the soil around them with about two inches thick of well digested manure. This causes the flowers to come forth with surprising quantity and of great size. I also cut off superfluous branches and buds. I have used with great success the ammoniacal water which flows from the gas distillation of coal. I found that five parts of water to one part of the gas water, was best for the Dahlias.

Gypsum in South Carolina.—The Southern Agriculturist says, "a specimen of gypsum was lately sent to Dr. Gibbs, of Columbia, from Mr. Ingraham's, on Cooper river. It resembles the gypsum of the Paris basin, which is extensively quarried for the manufacture of plaster of Paris, and as the geological position is the same, it is hoped it will be found in abundance."

It was well said by a sagacious observer, that "mankind might do without physicians, if they would observe the laws of health; without lawyers, if they would keep their tempers; without soldiers, if they would observe the laws of peace; but there is no doing without *farmers*."

From the Cultivator.

Making Sugar from Corn-stalks.

A short time since I met with Mr. Adams' account of his experiment in manufacturing corn-stalk sugar, undertaken from the inducements offered by the New York State Agricultural Society, and for which they awarded him a premium of one hundred dollars. I was much interested in its perusal, as it strongly reminded me of the difficulties and discouragements experienced in the earlier stages of the same inquiry, when experiment was the only available source of knowledge to which we could turn for assistance in our exertions. As I have pursued this subject with unabated confidence and reasonable success, since its commencement, my experience may perhaps be useful to Mr. Adams and others engaged in perfecting this important and interesting manufacture.

Before proceeding further, I must find a little fault with your Agricultural Society. Its premium was offered for the "maximum quantity of sugar made from an acre of northern corn." It appears to me that the great object to attain, is a plan by which sugar may be made *profitably*. It is very possible to expend more labour in the manufacture than the article would be worth; such a plan would of course be worthless practically, whatever might be the *amount* produced. Secondly, in planting corn for sugar, I should prefer seed that had ripened in a more southern latitude, as less liable to run to ear early in the season. In raising this crop, the great end to secure, is the perfect growth of the plant in every particular, except in the formation of its seed. No plan ever yet tried has succeeded completely in effecting this object. Those stalks which—from some cause yet unknown—have shown no disposition to form grain, are always far more juicy, and yield a much larger quantity of sugar than those from which the ear has been removed. As soon as this hitherto accidental condition of the plant is brought by persevering efforts, within our control, I confidently expect that the corn-stalk will not merely rival but exceed the sugar-cane in the amount of saccharine matter it will yield. The past season, a small lot of corn was planted in rows three feet apart and about six inches asunder in the row. As soon as the tassels appeared they were pulled out. The result of this experiment was encouraging, but not entirely satisfactory; another lot of corn growing within one hundred yards, was allowed to tassel, and this perhaps caused the partial failure. In order to try this plan fairly, the corn should be grown distant from any other, and the tassels pulled out before any of their pollen has been shed. Very thick planting, in order to prevent earing, is objectionable, as it renders the crop more liable to be prostrated by storms; and the stalks being small, the labour of handling them is increased; they should not be less than one inch in diameter, or about the size of broom handles; the distances in planting in order to produce this size, will vary according to the quality of the soil. Whatever plan is adopted to prevent earing, it must be attended to, or the sugar of the stalk will be expended in the formation of grain.

When the corn is ripe—which will happen about the usual time of cutting corn—cut off the tops at the point where the ear generally forms; the leaves on the stalk below this, are few in number and mostly dead; they may be sufficiently removed by simply passing the knife from top to bottom on each side of the stalk. By pursuing this plan, the formidable labour of stripping the stalks, which has been complained of, is greatly lessened, and the whole business put in a practicable shape.

The method of curing "tops and blades" is so well understood by farmers, that nothing need be said about it here. Experience has proved that the extras of this crop—the tops, blades, crushed stalks, &c.—are worth more, when properly secured, than the whole labour required in growing and manufacturing, provided this labour is economised, in the way pointed out. In the list of plants cultivated for forage, there is not in the whole world, another one that is equal to this in the amount of nutriment which it contains. It is well worth cultivating for the fodder alone; the stalks therefore cost nothing; every farmer may see from this, how—if he chooses—to steer clear from his grocery bill.

The mill for grinding, best suited for the farmer, is a simple one, and need not cost more than $10.

The boiling apparatus should consist, 1st, of two defecating kettles; they may be of cast iron, and capable of holding as much juice as the mill will press out in fifteen or twenty minutes; these kettles must be placed so that a quick and strong fire can be made under them; and so arranged that they can be emptied at a moment's warning. 2nd. Two or three evaporating pans; a single sheet of Russia iron, bent up six inches at the sides and ends, and riveted, makes an excellent pan of this description. 3rd. Two copper or tin pans for finishing; these should be flat bottomed, six inches deep, and so arranged that they can be removed from the

fire instantly when the charge is finished. They should never have much over two inches in depth of syrup placed in them at one time, and should each be of such a size that a charge of three or four gallons will not fill it deeper than this.

The difficulty of manufacturing sugar to the *best advantage*, has always been considerable. This has grown out of the foreign substances always found connected with it in the juices of plants. Sugar is one of the most easily decomposed substances in nature. The juice of a plant may be very rich in sugar, yet when slowly evaporated, the residue will not show a single trace of saccharine. In the process of vegetation, as the plant approaches maturity, sugar is changed into starch. In the germination of the seed, a contrary change occurs, and starch is converted into sugar. I took a portion of sprouted corn, and macerated it in water until the sugar was extracted; the liquid then strikingly resembled both in taste and smell, the juice of corn-stalk after it has been clarified; it was then set to evaporate over a slow fire; it gradually grew darker in colour, and in a short time it appeared very much like beet juice. Before the evaporation was finished, every particle of sugar had disappeared, and from being sweet and pleasant to the taste, it had become black, bitter and nauseous. The same experiment was repeated under the same circumstances, except that a small portion of starch was added to the water; in this case, the sugar was not decomposed, but retained its distinctive qualities throughout evaporation. The chemical reasons for this, it is needless now to discuss; the simple fact, and its application, are sufficient for our purpose. Wheat flour consists principally of starch, and was used with good success, though perhaps pure starch would be better. One pint of flour was mixed with two gallons of skim milk, and one pint of this mixture was added to 30 gallons of juice. These proportions are not given as best, for many more experiments will be necessary before they can be determined accurately.

As the juice comes from the mill, it should run into a receiver which will hold just enough to fill one of the defecating kettles; while in this receiver, the mixture of flour and milk, and also the necessary quantity of lime water must be added and well stirred in. It is then poured at once into the defecating kettle and heat applied; a very firm thick scum is by this means separated, and the juice becomes clear; it is next run through a flannel strainer into one of the evaporating pans, and the boiling kept up briskly. Take a shovel full of red hot coals from the furnace, and after blowing the ashes off, throw them into the pan: as you put in more juice, add more coal; as the pan becomes filled with coal, take out that which has been in longest. From this pan the juice is run in succession through the others—straining it when convenient—until it is finished. WM. WEBB.

Wilmington, Del., March 14th, 1845.

Kerry Cows.

Great yield of Butter.—In the rough and mountainous parts of Ireland, there is a small race of cattle called the Kerry breed. They are considered indigenous to the country, and are much esteemed for their good qualities—especially for the dairy. From the descriptions and engravings given of them by writers, particularly by Youatt, and by Low, in his "Illustrations of British Cattle," they appear to be a beautiful as well as hardy and useful variety. Mr. Youatt says—"The cow of Kerry is truly a poor man's cow, living everywhere, hardy, yielding for her size abundance of milk of a good quality, and fattening rapidly when required."

Mr. Colman, in his late speech at Sir Charles Morgan's cattle show, spoke of the Kerry cow as follows:—"He found in Ireland a dairy consisting of five dairy cows, from which the owner had sent to Liverpool, twenty-five firkins of butter, averaging 64 lbs. a firkin, and that was 320 lbs. of butter to each cow for the season. He conceived a stock of dairy cows worthy as much attention as a stock of fat cows. He believed from observation, and observation not confined to a few years, that in many localities, the farmer's best property, would be a good stock of dairy cows." (Report of Mr. Colman's speech in the London Farmer's Journal, Dec. 30th, 1844.) In the Journal of the Royal Agricultural Society, we find an account of a trial made between three Ayrshires, three Galloways, and three Kerry cows. The Ayrshires gave rather most milk, but the Kerries exceeded them all in butter.—*Cultivator.*

YELLOW LOCUST.—If you have but little fencing timber fit for posts on your farm, sow a few pounds of yellow locust seed, and when the plants are two years old they may be transplanted. In twelve years from the time the seed is sown, you may begin to cut them for posts.

ABORTION AMONG COWS.—Earl Spencer says, that since he placed lumps of rock salt in his pasture lands, none of his cows have suffered abortion.

Rotation of Crops.

When a succession of crops is grown upon fertile land without renewal of manure, the produce gradually diminishes; and after a certain period, if it be grain, the quantity which at the outset was eight or nine times the amount of the seed, will be reduced to three times or even to twice the seed. Thus crops impair the fertility of the soil, and eventually exhaust it.

It has been long admitted, that different species of plants manifest great diversity in their powers of exhaustion. Certain kinds, indeed, as trefoil and lucerne, far from exhausting it, communicate new vigor. As a general rule, however, every plant may be said to impoverish the soil in which it grows. This impoverishment is always manifest when the plant after maturity is completely removed, but is less sensible when much rubbish is left. Thus, for example, clover, after yielding two crops, which are generally cut as fodder, might still yield a third; this last, however, is generally ploughed into the ground as manure, being buried along with a considerable quantity of roots. This plan of meliorating the soil by the cultivation of trefoil, is what is called *manuring by smothering;* a method practised from a remote period in the south of Europe, and which offers decided advantages in those districts where there is abundance of pasture land. Hence, in smothering trefoil, the soil is amended at the expense of the nutritive matter it contains.

In discussing the advantage of one course of crops over another, the question always hinges upon that of exhaustion. Wherever an unlimited supply of dung and of handiwork can be procured, there is no absolute necessity for following any regular system of rotation. Under such favourable circumstances it is expedient to ascertain what kind of cultivation is, commercially speaking, best suited to the climate and the soil. There is little to fear that by a continued succession of similar crops, the fields will get infested with noxious weeds, because this inconvenience may be obviated by labour. Nor is impoverishment of the soil to be dreaded, since that can be remedied by the purchase of manure. The whole craft of agriculture is reducible to comparison of the probable value of the crop with the cost of manure, labour, &c. Farming of this sort excludes the keep and propagation of cattle, and may be strictly regarded more as gardening than as agriculture.

But where manure cannot be had from without, things must be reduced to a system; and the amount of produce which it is possible to export each year is fixed within bounds, which cannot be exceeded with impunity.

When by judicious cultivation land is rendered fertile, it is necessary, towards securing its fertility, to supply after every succession of crops equal quantities of manure. In considering this in a purely chemical point of view, it may be said that the produce which can be taken away without damaging the fertility of the land, is the organic matter contained in the crops, abstraction made of that present in the manure. Indeed, this latter substance must in some form or other return to the soil to fecundate it anew. It is capital placed in the ground, the interest of which is represented by the commercial value of the produce of all the other agricultural operations.

Where lands are extensive, population scattered, and means of communication difficult, there is less necessity for being tied down to systematic cultivation. There is always enough for a scanty population. A field yields grain, and after the harvest is converted for a series of years into meadow-land; such is the pastoral system in all its simplicity. To this primitive state of husbandry may be referred those plantations on cleared land in countries covered with forests. When the trees are felled and burned upon the spot, the soil yields for a long time and without manure, crops of maize and of wheat of surprising quality, at the cost of the fecundity acquired during ages of repose.

But when from increased population the land becomes more valuable, a larger amount of produce is demanded. Imperfect culture would prove inadequate. Accordingly a triennial rotation of crops was very anciently adopted in the north of Europe, consisting as is well known, of fallow land frequently ploughed during summer, followed by two years of grain. The fallow land received a certain quantity of manure to repair the exhaustion occasioned by the two crops of grain; hence when this mode of rotation is adopted there should be always sufficient meadow land to supply manure.

Leaving waste one-third of the surface has always been held a grave objection against triennial rotation. Hence various attempts have been made to get rid of the summer fallow. Some encouragement was given to these attempts from what occurs in horticulture, where the ground is rendered continually productive. In certain countries, moreover, tillage is only interrupted by severe weather.

On the other hand, it has been long remarked that it is not always beneficial to

grow grain during several consecutive years in the same ground, even when it is fertile and manure is abundant, owing to the almost insurmountable difficulty of destroying weeds. The fallow was justly considered the most efficient and economic means of getting rid of these. For this purpose *fallow crops*, as they were called, were introduced. Peas, beans, vetches, were at first the only plants used as fallow crops.

However, it was soon perceived that the fallow crops occasioned a very sensible diminution in the produce of corn; to counteract this inconvenience, recourse was had to a surcharge of manure; but as this cannot always be obtained, it was necessary either to reduce the cultivated surface or to appropriate a certain amount of meadow. Still the fallow crops had this advantage, that they enabled the farmer to derive from land a greater amount of produce in a given time without prejudice to the raising of corn. Hence the plan of turning the fallow to account was soon generally adopted.

The introduction of clover so modified the system of fallow crops as at one time to induce the belief, that the point of perfection had been attained in agriculture. This was when it was ascertained that trefoil, which had hitherto been only cultivated in small enclosures, might be sown in spring upon corn land, and occupy next year the place of the fallow in the triennial rotation. Trefoil, so far from exhausting the soil, was found to give it new fertility, and the succeeding corn crop yielded a plentiful harvest.—*Boussingault's Rural Economy.*

For the Farmers' Cabinet.

A Covering to the Ground useful.

Dear Sir,—In all the essays I have seen on the application of manure, no account has been made of the advantage the soil receives from a covering. I have noticed that a spot covered by a board, a pile of rails, a heap of stones—in short, no matter what, on removing the encumbrance which has occupied the ground for two or three months, and cultivating it, it is found much better than the adjoining land. Observe a forest tree standing in a field—if of tolerable size and thrifty, it will impoverish a quarter of an acre or more, yet the same kind of trees will grow close together and vigorously in the forest, where their leaves form a close covering to the ground, and at the same time the soil will be improved. Acting on these suggestions, I have for some years put my manure on clover in the spring, which I designed to turn under for wheat in the fall, giving the land the benefit of the covering of both the manure and the clover during the summer; and I think a given quantity of manure does more good to my land in this way than in any other that I have applied it. I state these things to you, Sir, that the attention of scientific men may be turned to this question. Does not a covering act so as to prevent the escape of ammonia and other substances beneficial to the soil? Yours, &c.,

Henry Van Dyke.

Kingston, N. J., June, 23rd, 1845.

Spare the Birds.—Travellers in the north of France cannot but perceive the almost total absence of birds in that district. The country is open and rarely broken by a hedge-row; and thus shelter being denied them, they seek more favoured spots. The effect is as obvious as it is injurious, for there is no limit set to the ravages of the caterpillar, or the destruction of the grub. The *Pontia rapæ*, or small cabbage butterfly, swarms to an extent which must be seen to be believed. The *Scarabæus milolantha*, too, flies in myriads; and there are no rooks to follow the plough.—*Eng. paper.*

The Alpaca.

Its naturalization in the British isles considered as a national benefit, and as an object of immediate utility to the farmer and manufacturer: by Wm. Walton.

For most of our cultivated plants, and, indeed, for many of our domestic animals also, we are indebted to other countries. With regard to the former, the history of their introduction is, in many cases, well established in detail; but it is so long since the latest of them—the potatoe, the turnip, or the mangel-wurzel, or carrot, for instance—was first cultivated in our country, that farmers have fairly settled down into the belief that they must make the best of the subjects they have on hand, for that Nature has nothing further in her stores suited, in our climate, for the wants of man or beast. And with regard to the latter, the introduction of the very latest, dates so much further back, that we must estimate the prejudice as stronger still, which scouts at the idea of any further addition being made to our stock of domestic animals from the lists of other countries. Of course, in speaking of this universal prejudice, we allude simply to the generality of those who at present occupy and cultivate our soil, and who form their opinion, probably, without very well knowing the grounds upon which it rests.

There is very probably, notwithstanding the general notion to the contrary, that a

useful addition will shortly be made to our stock of domestic animals. The alpaca, from the experience of it which has been complied from various quarters in this country by Mr. Walton, really seems likely hereafter to play an important part in the stock-farming of the hilly districts of the kingdom. This animal is indigenous in the mountainous regions of Peru, where two domesticated species of it occur. The one, receiving the name of llama, is used as a beast of burden; the other, the alpaca, to which we at present allude, is a wool-bearing animal, and of it large flocks were formerly possessed by the Incas, sovereigns in former days of that country, and by other wealthy inhabitants of it. The climate of the districts in which this animal flourishes is described by Mr. Walton as follows:

"The woolly natives possess a hardiness of constitution, and a peculiarity of structure, admirably well adapted to the nature of their birth-place. There, during half the year, snow and hail fall incessantly; whilst in the higher regions, as before noticed, nearly every night the thermometer falls below the freezing point, and the peaks, consequently, are constantly covered with an accumulation of ice. The wet season succeeds," &c.

On the applicability of the alpaca to our soil and circumstances, we quote the following remarks:

"The hardy nature and contented disposition of the alpaca, cause it to adapt itself to almost any soil or situation, provided the heat is not oppressive, and the air is pure. The best proof of its hardiness is its power to endure cold, damp, hunger, and thirst—vicissitudes to which it is constantly exposed on its native mountains; while its gentle and docile qualities are evinced in its general habits of affection towards its keeper. No animal in the creation is less affected by the changes of climate and food, nor is there any one to be found more easily domiciliated than this. It fares well while feeding below the snowy mantle which envelopes the summits, and for several months in the year clothes the sides of the Andes. It ascends the rugged and rarely-trodden mountain path with perfect safety; sometimes climbing the slippery crag in search of food, and at others instinctively seeking it on the heath, or in rocky dells shattered by the wintry storm; at the same time that, when descending, it habituates itself to the wet and dreary ranges on the lowlands, so long as it is not exposed to the intense rays of the sun.

"Many of our northern hills would try the constitution of any sheep, and yet there the weather is never so inclement or so variable as on the Cordilleras of Peru. With so many advantages, why, then, shall not the alpaca have an opportunity of competing with the black-faced sheep, the only breed that can exist in those wild and inhospitable lands! Of the two, the stranger would fare best on scanty and scattered food; at the same time affording to the owner a far better remuneration."

The alpaca wool is at present used largely in British manufactures. Mr. Walton estimates the quantity hitherto consumed, since its introduction in 1832, at 12,000,000 lbs. The price of it varies from 1*s.* 8*d.* to 2*s.* 6*d.* per pound, and the average weight of the fleece may be put at 10 pounds. Were the animal fairly naturalized on some of our bleakest hill districts, such land would soon increase in value from the increased worth of its annual produce in alpaca wool. And it appears from the experience of several gentlemen who have small flocks, that, when its habits shall be thoroughly understood, little difficulty will be experienced in doing so. The following is a statement by Mr. Sterling, of Craigbarnet place, Lennoxtown, Glasgow, a gentleman better qualified to speak on the subject than any one we could name:

"I can have no doubt that, when the subject is better understood, the animal itself better known, and a more expeditious method contrived to bring them to Britain, we shall have thousands of them. When known, their docility, their temperate habits, their hardiness, and, I may add, their easy keep, will, ere long, bring them into general notice. I can answer without the fear of being contradicted, that they will thrive and breed in Scotland equal, if not superior, to our native black-faced sheep."

To those who would laugh at the idea of bringing over here, and domesticating on our hills, a Peruvian camel or sheep, (for the alpaca has properties in common with both,) we would point to Australia, a country which not many years ago possessed no quadruped but the kangaroo; and yet, notwithstanding its many peculiarities of climate, is now thickly peopled with our sheep and oxen. But the question must not be left to generalities of this kind. The experience of a few short years, on the larger scale which expected importations will enable, will determine it satisfactorily; and if, as in all probability will be the case, the alpaca should become one of our domestic animals, the best thanks of the country will be due to Mr. Walton for the persevering energy with which he has pressed the subject on public attention. His book is an exceedingly interesting and neatly got-up little volume, and will, we doubt not, prove a useful publication.—*British Cultivator.*

Allen's Herd Book.

CIRCULAR.

Black Rock, N. Y., July, 1845.

Sir:—About a year ago at the solicitation of a number of gentlemen interested in the breeding of Short Horn Cattle, I published a notice in several of the agricultural papers of the United States, that I would get up an American Herd Book, provided my efforts should be seconded by a respectable portion of those engaged in that pursuit. Although slow in their responses, a considerable number of breeders have forwarded the pedigrees of their herds for insertion according to the terms of my proposal. Many, however, and among them, some of the early and distinguished promoters of this branch of agricultural improvement, remain unmindful of this opportunity of thus recording their valuable stock.

A sufficient number of individuals having already contributed the pedigrees of their cattle to insure its publication, the work will proceed as soon as circumstances will permit, which will be *within three months* from this time.

I presume no arguments will be necessary with any systematic short horn breeder, to convince him of the necessity and convenience of an American registry of his cattle, other than such as will suggest themselves to his own mind, and those already advanced in my two several notices to breeders already published.

In case you think proper to register your cattle in the proposed work, you will please transmit your catalogue of thorough bred animals (none other being admitted) with as little delay as possible, to me (post paid) at this place, with the registry fees accompanying them, and stating also the number of copies of the work you wish for, when published.

I will here remark, that the month of October next, *will be the latest period* at which pedigrees can be received, as the work will be put in press immediately after.

The terms for registry are as follow:

For a single animal, one dollar.

For any greater number not exceeding ten, 50 cents each.

For a number exceeding ten, 40 cents each.

The work itself not to exceed three dollars a copy.

If any gentleman of your neighborhood or acquaintance be a breeder of short horns, and not in receipt of this notice, you will confer a mutual favor by giving him the above information. Very respectfully, your obedient servant, Lewis F. Allen.

For the Farmers' Cabinet.

Use of Poudrette, &c.

A letter from J. R. Bowman of Montgomery county, dated the 1st ult., to Wm. R. Conkling, has been handed us, from which we make the following extracts. The time for applying the poudrette to the wheat crop is now nearly at hand. The accounts from those who have used this manure have been very generally satisfactory. Its price compared with other manures—the small expense of transportation, and the little labor required in its application, will induce our farmers who purchase manure, to continue to use the poudrette. We always have it on sale at this office.—Ed.

"Last year, the quan ity made, was insufficient for the demand, and I could only procure a single bushel at a time, which was applied in comparison with several other manures, to onions, cabbages and corn—on all of which crops it showed a very decided advantage, both as to cheapness and efficacy over bone dust, ashes and stable manure; that is, when we take into account the difference in the expense of hauling, and the ease of application.

"The plants nourished by poudrette have a much broader leaf, and more luxuriant colour than those produced by either of the other above mentioned manures. The present season, I have applied several loads of poudrette to various crops, and find it completely successful on all; and yet to my surprise, the chemical mixture you call *artificial guano* is double in power to the former. I have tried the experiment accurately, by placing half a peck of your guano, and a peck of poudrette on adjoining rows of potatoes, sowed after the sprouts came through the ground, and carefully worked in with the hoe; also, in like manner to sugar beets, and to peas and tomatoes with equal success, there being at present scarcely any difference; if any, it is in favour of your guano. A more advanced state of the crops, may show a different result, as probably the slight amount of moisture since the manures were applied, has been insufficient to dissolve the nutritive qualities of the poudrette, whilst the potash, &c. in the other stuff have attracted from the atmosphere what vegetation so much needed.

"I have been using bone dust since 1832, and fully understand its great value; twelve years back, it was all engaged by a few Englishmen at 50 cents per barrel; I visited all the button factories about the city, and offered a better price, in consequence of which the fine dust soon raised to 50 cents per bushel, at which rate it is mostly sold off very quick. I am told much of it is now exported to England, the high price in that country paying a handsome profit, and this will probably continue to be the case, as their much wetter climate renders it more valuable to them than to us."

Smut, Rust, and Chess.

Grosse Isle, Wayne co., Michigan,
March 3rd, 1845.

To the Editor of the Michigan Farmer:

Sir,—I lately consulted Professor J. F. W. Johnston, the eminent Agricultural Chemist of England, and author of the well known "*Lectures on the applications of Chemistry and Geology to Agriculture*," &c., on the cause and cure of those sad annoyances and causes of loss to the western farmer—smut, rust, and chess, in wheat. As his answer may probably prove beneficial to others besides myself, I beg to hand you a copy for publication in your paper.

Believe me, very sincerely,
Your obedient servant,
Charles Fox.

Agricultural Chemistry Association,
8 Bank Street, Edinburgh.

About the smut and rust, your notice is all right. Steeping in a solution of salt that will float an egg, and then drying the wet seed with quicklime; fermented urine, blue vitriol, (*sulphate of copper*,) and arsenic, are also used as steeps for the same purpose of killing the fungus, with greater or less effect. The rust arises from the over luxuriance of the growth of your wheat, which will diminish; but especially from the wetness of your soil, or the rains and mists to which, in the midst of so much water, your land may be subject. A good dose of lime, perhaps *plastering* your wheat, might help this disease; but it will lessen as your land is better drained, and rendered drier. But it is your chess in wheat which has amused me. Not that it is extraordinary that a farmer in Michigan should entertain that opinion, [that it is mutated wheat,] for it is prevalent over many other parts of the United States. Since I received your letter, I have amused myself further by reading *nineteen* articles upon the subject in the 7th, 8th, and 9th volumes of the *Cultivator*, your best periodical in the agricultural line, and therefore am not surprised, that with other farmers you should hold the opinion that chess is a disease of the wheat, or degenerate wheat. The chess is a *bromus*—a kind of grass, which resembles in its straw the young wheat, but which branches out in the head like the oat. Assume, with all botanists, that species cannot be transmuted, and the production of wheat from a *bromus* is impossible. If it be impossible, then how are your facts to be explained! You mention two cases. 1st. That of *new land*, when broken up and sown with wheat, chess comes up. This means, when correctly interpreted, that the seed of the chess was more abundant in the soil naturally, than the grass you added artificially; and perhaps also that more or less of your wheat was thrown out by the frost and destroyed. 2nd. On *old land*, where wheat is sown, if the wheat comes up thick and early, it will keep down the chess perhaps; if it is thrown out, or picked up by birds, or destroyed by frost, the blank spaces will be filled up by the sprouting of those seeds which are most abundant in the soil, which with you seems to be chess, as in the flats of Yorkshire it is the wild mustard. Can you wonder that this seed should abound in the soil, when you remark how large a crop of seed the chess bears, where it is allowed to ripen? And it has ripened, and shed its seed for a thousand years, in your alluvial soils. The clay banks of your rivers are full of it. And though you extirpate it from your land, the first river flood that comes and overflows your land, will bring the mud and seeds of the banks, and sow your land with it again. And thus, in some places, generations may pass before this weed be finally extirpated, even where the greatest care is taken. Such is the case in Yorkshire, on the banks of the flat streams. No further off than Northallerton, a good farmer has extirpated with much care and expense, the wild mustard; but a flood comes, undermines a portion of the clay banks between which the river runs; and wherever the river flows over his land, the labours of years has again to be undertaken, before the same seed can be made to disappear. The error with the American farmers is, that they start from the false assumption that the change of wheat is possible, and thus come to see proofs—just as our forefathers saw ghosts—where only natural appearances present themselves. Believe it to be impossible, and the explanation of appearances may cost a little more thought, but the expenditure of that thought, will lead to the *truth*.

(Signed)
James F. W. Johnston.

The learned Professor, it will be seen, supposes the chess to be a weed natural to our soil. I have never observed it in this district to grow except among wheat, or among grain crops immediately succeeding wheat. But being a distinct plant, it must grow wild in some part of our country; and be that where it may, these remarks will there aptly apply. But if the weed be not native here, we must explain the prevalence of this pest in this part of the country, by supposing that it has been brought here originally among grain seed: and may be prevented by scrupulous attention on our part

as to the cleanness of our seed. By never sowing seed with chess among it, we can escape the loss we suffer from this weed; but all grain growers must be aware how much cleaning, and what care is requisite to separate the chess from the wheat. Once introduced into a farm, it may become impossible to eradicate it. C. F.

Cultivation of Mushrooms.

Roswell L. Colt, of Paterson, N. J., in a communication to the *American Agriculturist*, says, "I have two houses in which I have raised them, one built expressly for the purpose, 50 feet long, 14 wide, 9 high, plastered inside, with a flue from a stove running on the ground through the centre. On the top of the flue are hollow tiles for the purpose of holding water and keeping the room moist. I have two tiers of beds on each side of the house, one over the other, three feet apart and five feet wide. We first fill each bed with pure horse dung, with as little straw as possible—say one foot deep; we then put on three inches of rich black mould; in this earth we plant the spawn of the mushroom broadcast. That from England comes in blocks like brick. This is broken up into pieces the size of a walnut, and planted about three or four inches apart. The best time to make the beds is in October and November. Keep the house warm; about 65 degrees, and damp and dark, and cover the beds with hay three inches deep. The mushrooms will be ready to pick in about a month, and will continue until August, or longer; but in very warm weather they get covered with bugs. The other house is smaller, and I heat it with a large pile of horse manure, which being kept wet my gardener thinks raises the best mushrooms."

London Breweries.

A correspondent of *Smith's Weekly Volume*, now in Europe, says, under date of May, 1845, "Barclay's Brewery, celebrated the world over, is such a curiosity that I have been tempted to visit it under favour of an introduction from one of the family owning it. The whole establishment covers 15 acres; we saw 180 vats, each containing from 1100 to 3000 barrels; they are 33 feet in height; one 36 feet across at the top, the bottom 43 feet, which had in it the enormous amount of 3,500 hundred barrels; the weight of iron in the hoops is seventeen tons, the eight bottom ones weighing no less than one ton four hundred weight; it is large enough to drive a carriage and six horses into; it will contain 4000 barrels of imperial stout, and its liquid treasure is worth eighty thousand dollars! Father Mathew's gimlet would lessen its value. There are stables for 187 of the enormous horses employed for delivery, each horse worth $300; one *little* fellow we measured, and found his height to be full 18 hands, or six feet; a steam engine finds full employment in breaking up their food.

"In one place we saw men in vats handling the hot hops, as nearly naked as savages. In one vat were 1360 bushels of malt; one copper boiler is so large that forty-five men have dined in it comfortably! it will contain 4,200 barrels of beer. Here are conduits half a mile in length, rail-roads, hoppers, steam engines, &c., enough to confuse one. Thirty tons of coal a day are consumed. The malt-bins will contain sixteen hundred thousand bushels, worth two millions and a quarter of dollars; sixty great cats are kept to destroy the mice. Fifteen hundred barrels of ale are made daily; it is cooled in summer by curious refrigerators. There is even a burying-ground for the men who die, but for this there is no longer room; the space is wanted, the temperance men would say, to make poison for others. The brewery was burnt down in 1832, but precautions are now taken so that the whole can be flooded in a very short time. To look at the Thames water you would not say it was a desirable article to drink, but the people here seem infatuated with beer; wherever you go you see huge signs, 'Truman, Hanbury, and Buxton's Entire,' and so of other brewers, while the beer is on every dinner table; and beer money is allowed to servants and soldiers, whether they spend it for that purpose or not, it is so settled in the contract."

Among many native Western fruits of value, there is an apple, originated among the Shakers, near Lebanon, Ohio, called the *Stump apple*. This very fine and large apple was exhibited at the last fall show of the Cincinnati Horticultural Society. For the time it lasts,—from the earliest of the late apples to about November,—it is in point of good flavor, cooking qualities, and its admirable adaptation for drying for sauce, one of our best Western fruits. The tree is remarkably productive, and the fruit maintains its large size generally throughout.—*Western Farmer and Gardener.*

It is said the water in which potatoes have been boiled, sprinkled over grain, plants, &c., destroys all insects in every stage of their existence, from the egg to the fly.

Germinating Power of Seeds.

Dr. Carpenter, in his work on Vegetable Physiology, gives the following interesting statements:

"To the westward of Stirling, there is a large peat bog, a great part of which has been flooded away, by raising water from the river Teith, and discharging it into the Forth; the object of this process being, to lay bare the under-soil of clay, which is then cultivated. The clergyman of the parish was on one occasion standing by, while the workmen were forming a ditch in this clay, in a part which had been covered with fourteen feet of peat earth; observing some seeds in the clay which was thrown out of this ditch, he took them up and sowed them; they germinated, and produced a species of Chrysanthemum. A very long period of years must have probably elapsed, whilst the seeds were getting their covering of clay; and of the time necessary to produce fourteen feet of peat-earth above this, it is scarcely possible to form an idea; but it must have been —in the natural course of things—extremely great.

"The following circumstance which occurred about thirty years ago in the State of Maine, in North America, is, perhaps, still more remarkable. Some well-diggers, when sinking a well, at the distance of about 40 miles from the sea, struck, at the depth of about 20 feet, a layer of sand; this strongly excited curiosity and interest, from the circumstance that no similar sand was to be found anywhere in the neighbourhood, or anywhere nearer than the sea-beach. As it was drawn up from the well, it was placed in a pile by itself; an unwillingness having been felt to mix it with the stones and gravel, which were also drawn up. But when the work was about to be finished, and the pile of stones and gravel to be removed, it was found necessary to remove also the sand heap. This, therefore, was scattered about the spot on which it had been formed; and was for some time scarcely remembered. In a year or two, however, it was perceived that a great number of small trees had sprung from the ground over which the sand had been strewn. These trees became, in their turn, objects of strong interest; and care was taken that no injury should come to them. At length it was ascertained that they were beach-plum trees; and they actually bore the beach-plum, which had never before been seen, except immediately upon the sea-shore. These trees must therefore have sprung up from seeds which had existed in the stratum of sea-sand pierced by the well-diggers; and, until this was dispersed, in such a manner as to expose them to the air, they remained inactive. 'By what convulsion of the elements,' adds the narrator, 'they had been thrown there, or how long they had quietly slept beneath the surface of the earth, must be determined by those who know very much more than I do.'

"The following is an example of the same general fact, which is interesting from its connection with historical events. In the year 1715, during the rebellion in Scotland, a camp was formed in the King's Park—a piece of ground belonging to the castle—at Stirling. Wherever the ground was broken, broom sprang up, although none had ever been known to grow there. The plant was subsequently destroyed; but in 1745, a similar growth appeared, after the ground had been again broken up for a like purpose. Some time afterwards, the park was ploughed up, and the broom became generally spread over it. The same thing happened in a field in the neighbourhood, from the whole surface of which about nine inches of soil had been removed. The broom seeds could not have been conveyed by the wind, although the plant is a common one in the neighbourhood, because they are heavy and without wings; and the form of the ground is such, that no stream of water could have transported them, or have covered them afterwards with soil. Such an effect must have resulted from the operation of causes, continued through a long period of time."

For the Farmers' Cabinet.

Amateur Farming.

To the Editor:

If you think the following observations worth it, you can give them a place in your paper, which you publish not only for the meridian of Philadelphia, but also for the humble cottager among our mountains, who has to earn his bread by the sweat of his brow, and who eagerly seeks in it what really is useful, and I must say, often finds it, though we sometimes meet the effusions of gentlemen, who have filled their purses by mercantile speculations, and then retreat to agriculture for the benefit of their health. They tell us of their operations, which may have turned out like that of the Indian's gun, which cost more than it came to. With pleasure we see in the June number of the Cabinet, that the Philadelphia Agricultural Society have past that very judicious resolution, that the applicants for the premium for the best farm, must answer questions as respects expenditures and profits. A strict account current, showing a balance of *profit*, would be an interesting document for our practical farm-

ers. The wealthy gentlemen who follow agriculture more for pleasure than for profit, ought to stand on higher ground, than merely to tell us how many sugar beets they can raise; we want to know whether they raise them to profit. Let them be liberal in making experiments, which their money enables them to do; for example—on the influence of electricity on agriculture, and let them give us a minute detailed report of their proceedings, then they will confer a real benefit to their brother farmers.

Another matter of regret is, that so many wealthy men cling to the large cities, speculating in stocks, shaving notes, &c., instead of promoting agriculture with liberality, like men of wealth in England do; we would then not have been obliged to look to that country, with all its pompous names of pedigree, in its genealogical herd book, &c., to improve our breed of cattle.

It is now a fact known by every practical farmer, that if our domestic breed were so well nursed and crossbreeded and every thing done to develope the organs that produce milk, they would be as good as the English breed. Many farmers from the interior, who have paid enormous prices for Durham or Devonshire cattle, now find that they being reduced to the same treatment as our domestic cattle, are not better than they. The farmer being obliged to barter his butter for store goods to the country merchant, at seven or eight cents per pound, it would be too expensive to keep additional hands on the farm to curry and nurse the cattle.* The butcher will inform you, that he prefers for slaughtering, the cattle from the western part of New York to the imported breed.†

If, what I state is not so, I wish to be corrected by the farmer who operates for making profits, not by the wealthy amateur, who merely farms to lay out his money.

H. S.

Bethel, Pa., July 5th, 1845.

*It would be well for our distant farmers to remember, that many are deficient in skill, or care, or both, in putting up their butter. If properly managed, and brought to market in first rate order, and a first rate article, it never need be sold in this market for seven or eight cents—it will readily command double those sums. Let the farmer take due care in these matters, and then he will find the extra price for his butter will enable him to "nurse and curry" his cows to some profit.—Ed.

†All crossings with our native stock, and the Durham, &c., have proved decidedly beneficial, both as respects, the milking properties, and in their adaptation for the knife.—Ed.

For the Farmers' Cabinet.

Minutes of the Philadelphia Agricultural Society.

At a Stated meeting of the Philadelphia Society for Promoting Agriculture, held at their Room on the 6th instant, Mr. Gowen, Vice-President, in the Chair—present 11 members.

Several beautiful specimens of wheat were exhibited by Mr. Gowen, having been presented by Mr. Thomas Morgan of this city, sent him by a relative residing in France.

Mr. Robert T. Potts, of Montgomery county, showed a fine sample of his O. K. wheat, the grain plump, white and heavy.

Mr. S. S. Richie read a paper, giving a statement of some experiments made by him, with the different concentrated manures on his late wheat crop, an account of which will be published hereafter.

After the business of the meeting was disposed of, a general conversation on agricultural subjects ensued. It was gratifying to find that the *rot* had not made its appearance in the potatoe crop, as it had for the two years past, and hopes were entertained that the present growing crop would escape the disaster.

An account was given by a member of the injury sustained from the effects of frost on the wheat, in the early part of June, in parts of Chester county, the present season.

Extract from the minutes,

A. Clement, *Rec. Secretary.*

August 7th, 1845.

Thrifty and Unthrifty Farmers.—The grand difference between a thriving farmer, and one who does not thrive, is, the one looks out for the *fractions*, the other does not. In farming, nothing should be lost; nothing should be neglected; every thing should be done at the proper time; every thing should be put in its proper place; every thing should be performed by its proper implement. When these rules are observed, the farmer will surely prosper—though his gains may be slow, they will be certain and sure.

To Extract Grease Spots from Silks and Coloured Muslins.—Scrape French chalk, put it on the grease spot, and hold it near the fire, or over a warm iron, or waterplate, filled with boiling water. The grease will melt, and the French chalk absorb it, brush or rub it off. Repeat if necessary.

He who has no bread to spare, should not keep a dog.

Lightning Rods, No. 3.

(Continued from page 356, last volume.)

4. *The point of the Rod.*—It is necessary that a lightning rod should have an acute slender point, not liable to be destroyed by rust—hence it has been found expedient to employ some metal which is not liable to rust for this purpose. Platina, gold, and silver, are the most proper. The cost of the two former renders them somewhat objectionable, and their place can be very well supplied by the latter, at a much less expense. A half dollar cut into three or four slips, and then forged into square tapering points about two inches long, with a screw tap at the lower end to attach them to the rod, will make so many very good points when neatly finished. This may be done by any ordinary blacksmith, taking care not to heat the metal quite to a red, so as to make it crumble under the hammer. Very good points may thus be obtained for twenty-five cents each, instead of paying some ten or twenty times that sum for those which are perhaps not as good. With a view to improve the quality and appearance of the rod and to make it less top-heavy, it is advisable to draw three or four feet of the upper end to a taper, so that the top shall correspond with the base of the point. A hole should then be drilled in the end—a female screw cut in it, and the point firmly screwed in. I have had points of this description in use for fifteen years, and do not perceive that they have sustained any injury.

It has long been a controverted question, whether one point or several to a rod is to be preferred. Professor Olmstead says, "According to the experiments of Earl Stanhope, made more than sixty years ago, a *single needle* will discharge a Leyden jar more rapidly than a *bundle* of the same." "I believe one point preferable to several, especially when they *diverge from each other.*" *Observer* says, "There is reason to doubt whether much advantage is gained by increasing the number of points, unless they are *separated to a considerable distance.*" Thus Stanhope found one preferable to several, when they *did not diverge.* Olmstead believes the same to be true when they *do diverge*; and *Observer* agrees with them unless when they are *separated to a considerable distance.* There is little discrepancy in all this. Stanhope's *bundle of needles* taken collectively, made a blunt instead of a sharp point—each one was circumstanced with regard to the others as the point in *fig.* 6,* is to the contiguous body. I understand *Observer* to mean, that the points should be separated to *such a distance* as not to interfere with each other's action. Thus each point being effective, they will certainly discharge a cloud more rapidly than one alone could do. This seems to be a plain common-sense view of the subject. Unless the points can be scattered over distant parts of the building remote from each other, they will hardly compensate for the cost. And when so placed it becomes a matter of convenience—a question of economy, whether the several points shall all be connected with the same rod or with different ones.

5. *The height of the Rod.*—I find it will be impossible to explain the operation of points under the varied circumstances in which they are placed, without the aid of further *illustrations*, and this seems denied to me. It must therefore suffice to say, that the greater the elevation of the rod, the more extensive will be its influence. *Observer* has well remarked, "that the length of the rod should be such as to elevate its point *as far as possible above the top of the building and every other contiguous object.*" Every near object, whether lateral to, or beneath the point, must impair its operation in somewhat the ratio of its distance and magnitude. A rod 50 feet long erected on an extended plane, would not be as effective as if it were placed on the top of a high conical hill. So also a rod raised from the centre of a flat roof, will possess less protective power than if placed on the *comb* of a common roof. When a rod is overtopped by an adjacent building, chimney, tree, &c., it is rendered comparatively inert.—(See prop. 23, 24, *figs.* 6, 7.) Protection is the primary object—we desire the greatest possible security. I would therefore advise in every case to raise the rod as high as it can be supported. If this is thought to be still too indefinite, I would say let it rise *at least ten feet* above every near object. Professor Olmstead, when speaking of "vanes, balls and ornaments, which are often placed on rods," says, "I think these appendages *do not* generally affect the efficacy of the rod." *Observer* says, "it is found that all objects when *near to the point*, diminish its effects in a rapidly increasing ratio to their height, until they render it *entirely useless.*" The sentiment of *Observer* is confirmed by the experiment shown *fig.* 7. It is therefore not advisable to connect any such appendages with lightning rods. They must, to a certain extent, frustrate the intention for which they were constructed, and may in extreme cases lead to disastrous consequences.

6. *The extent of Protection.*—Here, too,

* See page 249, last vol. of Cabinet.

there is a diversity of opinion. Dr. Comstock says, "A single rod only protects a circle around it which is equal to twice its height above the building;" and J. M. C. lays down the same "established rule" in nearly the same words. But *Observer* says, "no such distances can be assigned, because they *continually vary* from nothing up to an indeterminate extent, as the *intensity of the electric charge and other circumstances* vary." Among these "other circumstances" must be included the form and extent of the cloud and of the surfaces around the building. It is prudent to avoid attempting precision where it is not possible to be precise. I would therefore only lay it down as a general rule, that where a rod is properly constructed, one may be sufficient for a building of moderate extent. Where the structure is large, two or more should be used. It is better to err on the safe side.

In concluding these hasty remarks I will adopt the sentiment of *Observer:* "We too often see conductors hang dangling by the sides of buildings, with the lower ends broken off," or very imperfectly planted in the earth. "Still more frequently we see their points scarcely raised above the top of the building, or completely overhung with trees. The protection which they afford must be very precarious. Indeed we often hear of such buildings being struck with lightning;" or perhaps more properly the rod attached to them—or the overhanging tree. This is no more than might be expected. Some years since an excellent rod was erected to a house that was shaded by a row of Lombardy poplars, which stood some twenty-five feet from the rod, and in a few years ascended many feet above it. At different times, two of those trees have been struck by lightning—the point below being crippled and prevented from disarming the cloud by their rising above it. This is no uncommon case—but is one which we have abundant cause to regret, inasmuch as it is continually brought up to prove that lightning rods are of no use. But we would say, let those who may doubt their efficacy, give them a fair trial before they pronounce a judgment upon them—let *all the conditions* of a *perfect conductor* be fully complied with. *Make it one connected whole—sink it deep into moist earth—elevate it far above all near objects, and furnish it with a perfect point*—and he who now so confidently recommends its use will cheerfully abide the trial.

FRANKLIN.

Eighth mo. 1st, 1845.

TRY to love flowers—cultivate them; it will make you happier—perhaps better.

Premiums offered by the Agricultural Society of New Castle County, Del.

At the Fall Exhibition, Cattle Show and Ox team Ploughing Match, to be held at Wilmington, on Wednesday and Thursday, the 17th and 18th Sept., 1845.

HORSES.

For the best thorough-bred stud-horse, certificate of merit.
For the next best do. do. certificate of merit.
For the best stud-horse for field and road, certificate of merit.
For the best pair of carriage horses, certificate of merit.
For the best saddle horse, Farmers' Encyclopedia.
For the best pair of work horses, certificate of merit.
For the next best do. certificate of merit.
For the best thorough-bred mare, certificate of merit.
For the best mare for field and road, Youatt on the Horse.
For the best horse-colt from two to three years old, colt bridle.
For the best horse-colt, one to two years old, Cabinet, 1 year.
For the best mare-colt, from two to three years old, colt bridle.
For the best mare-colt, one to two years old, Cabinet, 1 year.
For the best colt under one year old, Farmers' Land Measurer.

CATTLE.

For the best bull, certificate of merit.
For the second-best do., Youatt on Cattle.
For the third-best do., Cabinet, 1 year.
For the best cow, the latest improved Churn.
For the second-best do., superior Butter Tub.
For the third-best do., Farmers' Encyclopedia.
For the best pair of fat cattle, Treatise on Cattle.
For the best fat steer, Clater and Youatt's Cattle Doctor.
For the best lot of grass fed steers, not less than six in number, Farmers' Encyclopedia.
For the best lot of fat heifers, not less than six in number, Farmers' Encyclopedia.
For the best bull-calf, from one to two years old, certificate of merit.
For the best bull-calf under one year old, Cabinet, 1 year.
For the best heifer-calf, from two to three years old, Colman's Reports.
For the best heifer-calf, from one to two years old, Youatt on Cattle.

For the best heifer-calf, under one year old, Cultivator 1 year.
For the best lot of store calves, not less than six in number, Colman's Reports.
For the best pair of working oxen, Skinner's Farmers' Library.
For the second-best pair of working oxen, Youatt on Cattle.
For the third-best pair of working oxen, Muck Manual.
For the best pair of four-year old steers, Youatt on Cattle.
For the best and best broke pair three years old, Cabinet 1 year.

SHEEP.

For the best Long-woolled buck, Blacklock's Treatise on sheep.
For the next best Long-woolled buck, certificate of merit.
For the four best Long-woolled ewes, Cabinet 1 year.
For the four next best Long-woolled ewes, certificate of merit.
For the best Short-woolled buck, Treatise on sheep.
For the next best Short-woolled buck, certificate of merit.
For the four best Short-woolled ewes, New England Farmer, 1 vol.
For the four next best Short-woolled ewes, certificate of merit.
For the four best Lambs of any breed, Cultivator 1 year.
For the four next best Lambs of any breed, certificate of merit.

HOGS.

For the best boar over one year old, Farmers' Encyclopedia.
For the next best boar over one year old, Cabinet 1 year.
For the best boar under one year old, Farmers' Encyclopedia.
For the best sow over one year old, Farmers' Encyclopedia.
For the best sow under one year old, Skinner's Farmers' Library.
For the next best sow under one year old, American Farmer 1 year.
For the best litter of pigs, not less than five, Colman's Reports.
For the next best litter of pigs, not less than five, American Farmer.

FARMS.

For the best Farm, having regard to product, to economy in the working, and to arrangements of barns, shedding, &c., also to neatness in its management. Premium—Skinner's Farmers' Library.

COMPOST MANURE.

To the person who shall make the most satisfactory, and in the judgment of the committee, the most useful experiment in composting manure, not less than 100 loads of 40 cubic feet, before October 1st, 1845. Premium—Skinner's Farmers' Library.

CROPS.

For the best crop of Wheat, not less than 30 bushels per acre, and not less than five acres, $10
For the next best do., not less than two acres, 5
For the best crop of Corn, over 70 bushels per acre, and not less than two acres, 10
For the next best do., Cabinet 1 year.
For the best crop of Oats, over 60 bushels per acre, and not less than four acres, 5
For the next best do., Cabinet 1 year.
For the best crop of Grass, making not less than two and a half tons of Hay per acre, nor less than three acres, Colman's Reports.
For the best crop of Potatoes, not less than 300 bushels per acre, nor less than one acre, Farmers' Encyclopedia.
For the best crop of Ruta-baga Turnip, of one acre or more, not less than 800 bushels per acre, Colman's Reports.
For the best crop of Sugar-beet, of half an acre or more, and not less than 25 tons to the acre, Colman's Reports.
For the best crop of flat Turnips, quarter of an acre or more, not less than at the rate of 300 bushels per acre, Cabinet 1 year.
For the best crop of Sweet Potatoes, not less than quarter of an acre, Cabinet 1 year.
For the best field of Potatoes, not less than three acres, Colman's Reports.

BUTTER AND CHEESE.

For the best new milk Cheese, Colman's Reports.
For the best fresh Butter, not less than 5 lbs. Churn.
For the next best do., Butter Tub.
For the best potted or preserved Butter, not less than 20 lbs., nor less than two months old, Colman's Reports.
For the next best do., three stone Butter pots.

CULINARY VEGETABLES.

For the best and greatest variety of garden vegetables, $10.
For the second-best do., $5.
For the third-best do., Colman's Reports.

For the best Cabbage, not less than six heads, to be produced on or before the Fall Exhibition of 1845, Bridgman's Gardeners' Assistant.

For the best Cauliflower, not less than three heads, Vegetable Physiology.

For the best Kale, not less than three bunches of one pound each, to be produced by November 21st, 1845, Cabinet 1 year.

For the best bunch Beans, not less than half a peck, to be produced on or before June 25th, 1846, Cultivator 1 year.

For the best half peck of Onions, raised from the seed, Cabinet 1 year.

For the best bunch of Onions, certificate of merit.

For the best Tomatoes, not less than one peck, certificate of merit.

For the best Egg Plants, not less than half a dozen, certificate of merit.

FRUITS.

For the best Strawberries, not less than two quarts, to be produced on or before July 1st, 1846, Cabinet 1 year.

For the best Raspberries, not less than three quarts, to be produced before June 20th, 1846, Cultivator 1 year.

For the best early Pears, not less than half a peck, to be produced on or before July 20th, 1846, China fruit basket.

For the best fall Pears, not less than half a peck, to be produced on or before Nov. 21st, 1845, China fruit basket.

For the best winter Pears, not less than half a peck, to be produced between the 1st and 17th of March, 1846, China fruit basket.

For the best native Grapes, not less than four bunches, to be produced between the 17th and 22nd of October, 1845, Bridgman's Gardeners' Assistant.

For the best Plums, the least liable to injury from insects, not less than two dozen, to be produced on or before the 5th of October, 1845, Cabinet 1 year.

For the best Quinces, not less than half a peck, to be produced at the Fall Exhibition of 1845, Cultivator 1 year.

For the best Peaches, not less than half a peck, to be produced at the Horticultural Exhibition, a handsome fruit basket.

For the best Apples, not less than half a peck, premium Saw.

For the next best Apples, Pruning Knife.

FLOWERS.

For the best varieties of Camellias, to be produced to the Society by March, 1846, certificate of merit.

For the best varieties of Roses, to be produced to the Society in May or June, 1846, certificate of merit.

For the best variety of Double Pinks, to be produced on or before the 15th of June, 1846, certificate of merit.

For the best varieties of Hyacinths, to be produced to the Society on or before May 20th, 1846, certificate of merit.

For the six best varieties of Tulips, to be produced on or before May 20th, 1846, certificate of merit.

For the six best varieties of Dahlias, to be produced on or before October 20th, 1845, certificate of merit.

For the ten best varieties of Chrysanthemum, to be produced on or before November 21st, 1845, certificate of merit.

For the best Bouquet, exhibited at the exhibitions of the Society, certificate of merit.

For the introduction of any new and valuable Seeds, Fruits or Plants, presented to the Society during the years 1845–'46, a silver medal of the value of $3 to $5, at the discretion of the Board of Directors.

SILK.

For the best reeled raw Silk, if approved, not less than a pound, a premium Silk Reel.

For the heaviest and best Cocoons, excluding double ones, not less than five pounds, Treatise on Silk.

AGRICULTURAL IMPLEMENTS.

For the best Plough, certificate of merit.

For the best Drilling Machine, certificate of merit.

For the best Grain or Grass Sowing Machine, certificate of merit.

For the best Mowing or Reaping Machine, certificate of merit.

For the best Straw and Hay Cutter, certificate of merit.

For the best Root or Vegetable Cutter, certificate of merit.

For the best Corn Sheller, certificate of merit.

For the best display of Agricultural Implements, certificate of merit.

For the best Threshing Machine, certificate of merit.

For the best farm and road Wagon, certificate of merit.

For the best Cart, certificate of merit.

For the best and most convenient harvest bed on wagon or cart-wheels, certificate of merit.

Any newly invented Agricultural apparatus will be entitled to appropriate premiums.

MAIZE SUGAR.

For the largest quantity of Sugar—having regard to quality—not less than 20 lbs., manufactured from corn-stalks, Colman's Reports.

AMERICAN MANUFACTURES.

For the best American "Russia Iron," certificate of merit.
For the best piece of fine broad Cloth, certificate of merit.
For the best lot of Cassinetts, not less than three pieces, certificate of merit.
For the best lot of fine Satinetts, not less than three pieces, certificate of merit.
For the best specimen of Cotton goods, certificate of merit.
For the best ingrain piece of Carpeting, certificate of merit.
For the handsomest and best made saddle and bridle, certificate of merit.
For the handsomest and best set of single or double harness, certificate of merit.
For the best lot of Edge Tools, certificate of merit.
For the best constructed Cooking Stove, certificate of merit.
For the best lot of Cabinet Furniture, not less than three pieces, certificate of merit.
For the handsomest and best Parlour Stove, certificate of merit.
For the handsomest and best made Marble Mantel, certificate of merit.
For the handsomest and best made Boots and Shoes, three pairs of each, certificate of merit.
For the handsomest and best manufactured Hat, certificate of merit.
For the handsomest lot of manufactured Silverware, certificate of merit.
For the best and most convenient four-wheel Carriage or Dearborn for family use, and having regard to cost, certificate of merit.
For the handsomest and best specimen of Castings, certificate of merit.
For the best sample of Coach or Shoe Leather, certificate of merit.

☞ All to be made in New Castle county, and premiums to be awarded to any domestic articles not enumerated, as above, at the discretion of the Board of Directors.

PLOUGHING MATCH,

For Horses and Oxen, single or double teams, and with or without drivers, to take place on the second day of the Exhibition.

For the best Ploughing, $10 and Cabinet 1 year.
For the second-best Ploughing, Skinner's Farmers' Library.
For the third-best Ploughing, Colman's Reports.
For the fourth-best Ploughing, Farmers' Encyclopedia.

The great Ox Team will take place this year. Farmers generally are invited to bring in their Oxen to form a long team. The Oxen of each Hundred will be designated by a banner, and the Hundred that brings in the largest number will have its Oxen placed on the lead.

There will be a Ploughing Match for boys under 16 years of age.

For the best Ploughing, $5.
For the second-best Ploughing, Farmers' Encyclopedia.

Claims for the premiums on crops must in every instance, be accompanied with a statement of the condition of the ground before commencing, and then the whole process of tillage, and the measurement must be of the whole crop by the half bushel, and certified to in writing by the applicant. Crops to be entered as early as the day of Exhibition—applications to be acted on by the committee any time before the 1st of January, 1846.

No animal shall take the same premium a second time.

All articles exhibited will be returned to contributors unless otherwise directed.

If, of any article for which a premium is offered, no specimen be submitted worthy of distinction, the Society reserves the power to withhold the premium, and in all cases where premiums shall be demanded, they will require such evidence from the claimants as shall be satisfactory to the Directors. No person shall be entitled to a premium for any animal which he shall not have had or possessed at least six months immediately preceding the time of exhibition. It is to be distinctly understood that all grain, vegetables, &c., produced for competition, shall be the growth of the producer.

All premiums not demanded within sixty days after they shall have been awarded, shall be deemed as having been relinquished to the Society. The object of the Society in offering these premiums, is simply to excite a spirit of emulation among cultivators to improve the varieties of fruits, vegetables, and other productions. It is desirable that each kind of fruit offered for competition may be as numerous as possible, regard being had to produce none but of fair quality. Each article should be accompanied by its appropriate name. It is also desirable that the articles exhibited should be accompanied by short observations on the mode of culture,

with any other remarks deemed to be of utility.

The Judges are authorized to withhold premiums where none is entitled to distinction; and where but one of a class is exhibited they will award such premium as they think it merits. Those who intend to compete, must inform the Committee of Arrangement before 11 o'clock on the day of exhibition.

All stock, &c., exhibited, must remain on the ground during the Exhibition; and all stock intended for sale will be required to be registered in a book provided by the Committee of arrangement, at the following rates: For each horse, $2; for neat cattle, $1 each; for hogs and sheep, 50 cents each.

Articles that are designed to compete for premiums, will be produced when practicable, at the annual exhibitions of the Society. Perishable articles may be offered at any of the meetings of the Society, or at those of the Directors, which take place on the afternoon of the second Saturday of every month in the City Hall; or they may be subjected to the inspection at any time, of either of the following committee appointed for that purpose, viz:

Dr. J. W. Thomson,
Merritt Canby,
Samuel Hilles,
Philip Reybold,
Anthony M. Higgins,
Ziba Ferris,
W. J. Hurlock.

The Society will dine together at three o'clock. All members *not* in arrears to the Society, will receive their tickets to the dinner free of charge. The Annual Address will be delivered by a distinguished agriculturist, at John Hall's Hotel, immediately after dinner.

Manure.

It is well known that in a close stable, where there are a good many horses, there is a very pungent smell, affecting the eyes and nose, more particularly when the stable is being cleaned out. This smell is occasioned by the flying off of ammonia, which is the essence of manure, and which volatilizes or flies off at a very low temperature —even the warmth of the manure in a stable will send it off, and it goes off in great quantities by the common heat of the manure in a farm yard, whether thrown up in heaps or not. There is however a very cheap and simple remedy for this. Before you begin to clear out your stable, dissolve some common salt in water; if a four horse stable, say 4 lbs. of salt dissolved in two buckets of water and poured through the nose of a watering pan over the floor of the stable an hour or so before you begin to move the manure, and the volatile salts of ammonia will become fixed salts from their having united with the muriatic acid of the common salt, and the soda thus liberated from the salt, will quickly absorb carbonic acid, forming carbonate of soda; thus you will retain with your manure, the ammonia that would otherwise fly away, and you have also a new and most important agent thus introduced, viz: the carbonate of soda. As this is a most powerful solvent of all vegetable fibre, and seeing that all manures have to be rendered soluble before they can act upon vegetation, it is apparent that the carbonate of soda thus introduced must be a most powerful agent.—*Gardener's Chronicle.*

For the Farmers' Cabinet.

Premiums of Pennsylvania Horticultural Society.

The Seventeenth Autumnal Exhibition of this Society, will be held as usual, at the Museum building in Ninth street, on the 24th, 25th and 26th of next month. The following premiums are offered.

FOR NATIVE GRAPES, VIZ:

For the best Isabella,	six bunches,		$3 00
do do next best do.	do		2 00
do do best Bland or Powell,	do		3 00
do do next best do.	do		2 00
do do best Catawba,	do		3 00
do do next best do.	do		2 00
do do best Elsinborough,	do		3 00
do do next best do.	do		2 00
do do best of another variety,	do		3 00
do do next best do.	do		2 00

FOREIGN GRAPES, RAISED IN THE OPEN AIR.

For the best Black or Red Hamburg,	four bunches,		$5 00
do do Hansteretto,	four bunches,		5 00
do do Black Constantia,	do		5 00
do do Chasselas,	do		5 00
do do White Gascoigne,	do		5 00
do do Frontignac,	do		5 00
do do St. Peter's,	do		5 00
do do of another variety,	do		5 00

FOREIGN GRAPES, RAISED UNDER GLASS.

For the best without artificial heat,	four bunches,		$5 00
do do next best do do	do		3 00
do do best with artificial heat,	do		5 00
do do next best do do	do		3 00
do do best Peaches, one bushel,			10 00
do do next best do do			5 00
do do best do one peck,			3 00
do do nest best do do			2 00
do do best do two dozen,			2 00
do do best Seckel Pears,	one peck,		3 00
do do next best do	do		2 00
do do best Beurré or Butter	do		3 00
do do next best	do		2 00
do do best Bartlett Pears, half a peck,			3 00
do do best Pears, of another variety, one peck,			3 00
do do next best Pears do	do		2 00
do do best and most numerous named varieties of Pears,			5 00
For the next best and most numerous named varieties of Pears,			3 00
For the best Apples, one bushel,			3 00
do do next best Apples do			2 00
do do best Apples, one peck,			2 00
do do best and most numerous named varieties of Apples,			5 00
For the next best and most numerous named varieties of Apples,			3 00
For the best Quinces, half a peck,			3 00

For the next best Quinces, half peck,	$2 00
do do best Nectarines, one dozen,	3 00
do do Plums, two dozen,	3 00
do do next best do	2 00
do do best Water Melons, Spanish variety, three in number,	3 00
For the next best Water Melons, Spanish variety, three in number,	2 00
For the best Water Melons, of any other variety, three in number,	3 00
For the next best Water Melons, of another variety, three in number,	2 00
For the best Nutmeg Melons, or variety thereof, three in number,	2 00
For the next best Nutmeg Melons, or variety thereof, three in number,	1 00
For the best American seedling Potatoe, of superior quality,	5 00
For the best Potatoes, one bushel,	2 00
do do next best do do	1 00
do do best Sweet Potatoes, do	2 00
do do next best do do	1 00
do do best Onions, four dozen,	2 00
do do best Cabbage, six heads,	3 00
do do next best Cabbage, six heads,	2 00
do do best red Cabbage, six heads,	3 00
do do best Carrots, garden culture, two dozen,	2 00
do do best Lettuce, six heads,	2 00
do do next best do do	1 00
do do best Endive, blanched, six heads,	2 00
do do best Celery, six stalks,	2 00
do do next best, do do	1 00
do do best Salsify, two dozen,	2 00
do do Cranberries, cultivated, half a bushel,	2 00
do do next best do do do	1 00
For the best and greatest amount of Honey, produced by one hive of bees, being a swarm of 1845, to be exhibited without the bees,	5 00
For the next best and greatest amount of Honey produced by one hive of bees, being a swarm of 1845, to be exhibited without the bees,	3 00
For the best display of Honey,	5 00
do do next best do do	3 00

It is to be distinctly understood that the produce is to be from bees without artificial food.

For a group of twelve of the best green-house plants, named specimens,	$10 00
For another group of twelve of the next best green-house plants, named specimens,	5 00
For the best fifty named variety of Dahlias,	5 00
do do next best fifty named variety of Dahlias,	3 00
do do best twenty named variety of Dahlias,	3 00
do do next best do do	2 00
do do best Amer. Seedling Parti-col'd Dahlia,	3 00
do do best do self coloured Dahlia,	3 00
do do best ten named varieties of Dahlias, grown by amateurs,	3 00
For the next best ten named varieties of Dahlias, grown by Amateurs,	2 00
For the best Dahlia, grown by Amateurs,	2 00

FOR DESIGNS FORMED OF CUT FLOWERS, ETC.,

Which are not to occupy at their base more than six feet square.

For the best and most appropriate,	$40 00
do do next best and most appropriate,	30 00
do do do do do	20 00
do do do do do	15 00
do do do do do	12 00
do do do do do	10 00
do do do do do	8 00
do do do do do	6 00
do do do do do	5 00

☞ No special premiums to be awarded for designs.

FOR BOUQUETS,

To be confined to those suitable for the centre-table, the hand, or of basket-form.

For the best and most approved,	$7 00
do do next best and most approved,	5 00
do do do do do	3 00
do do best formed of indigenous flowers,	5 00
do do next best do do do	3 00
do do best pair of Wreaths for Festooning,	10 00
do do next best do do do	5 00
do do next do do do	3 00

THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

PHILADELPHIA, EIGHTH MONTH, 1845.

WHEN the Editor assumed his present position in relation to the Cabinet, he was well aware that he was entering upon ground entirely new to him, and he freely acknowledges he had numerous misgivings. He was, however, personally acquainted with very many of the subscribers: he knew that he might rely upon their indulgence, and he thought also, he might hope to be leniently dealt with by others, with whom he had not the pleasure and benefit of an acquaintance. These calculations he has found realized. His intercourse with his subscribers has been—he might perhaps say, exclusively, for he does not recollect a single exception—of an agreeable character.

At the opening of another volume, we tender our thanks to the subscribers for their interest in the Cabinet, and invite them not only to continue, but to extend that interest. We thank our numerous correspondents, and ask them to continue their labours for the general good, and to prevail upon others to throw in their mite. All who are now on our lists are solicited to continue there—for we cannot afford to lose one of them; and to the thousands of farmers both in this State and elsewhere, who do not receive our paper, we would say, send in your names. We refer with some degree of satisfaction to the volume just closed for the character of the succeeding one, which we trust, will be of at least equal value.

IT was announced in the CABINET two months ago, that Greeley & McElrath, of New York, were about to publish the *Farmers' Library and Monthly Journal of Agriculture*, to be edited by J. S. SKINNER, the originator, and for a long period the Editor of the *American Farmer*. The first number has been received. The solid and various character of the matter adapts it remarkably to the wants of those of our citizens who have leisure and taste—and who should not have!—for these things. The well known standing of the Editor is a strong guarantee for the value of the work. We cordially welcome his return to the editorial corps, and assign to him the ARM CHAIR.

WE learn from the *Cherokee Advocate* that the Cherokees are about to form a National Agricultural Society. A meeting for that purpose was called, to be held at Tahlequah on the 27th ult. This movement may lead to very important results. The Cherokees are decidedly an agricultural people, and perhaps nothing will more immediately conduce to their permanent advantage than the improvement of their agriculture. Whatever tends to this, should be encouraged.

THE Reading Journal says that there were passed a few days ago down the Reading Rail Road, twelve hundred and thirty-four cars loaded with coal, averaging four and a half tons each, making in the whole five thousand five hundred and fifty-three tons, all passed over the whole road from end to end in one day.

PHILADELPHIA AGRICULTURAL, HORTICULTURAL, AND SEED WAREHOUSE.

No. 194½ Market street, between Fifth and Sixth streets, South side.

For sale as above, Prouty & Mears' Patent Centre Draught Self-sharpening Ploughs, with all the new improvements attached. These ploughs have taken nine premiums the last fall, in the States of Pennsylvania and Delaware. Subsoil ploughs for one or two horses—Taylor's new Patent Straw-cutters—Guillotine Improved do.—Corn-Planters—Cultivators—Harrows; Turnip-Drills, &c. Garden tools of every description. Also, *Vegetable* and *Flower seeds*, crop of 1844, grown for this establishment, and warranted true to name. Among the collection are several new kinds, very superior—as Seymour's White Giant Celery—Union Head Lettuce. Also, Peas—Beans—Potatoes, &c.—Fruit-trees—Bulbous roots, &c., for sale at the lowest prices, by D. O. PROUTY.

Poudrette.

A valuable manure—of the best quality, prepared in Philadelphia, for sale at the office of the FARMERS' CABINET, No. 50, North Fourth Street, or at the manufactory, near the Penitentiary on Coates' street. Present price, $1 75 per barrel, containing four bushels—$5 for three barrels—$15 for ten barrels, or thirty cents a bushel. Orders from a distance, enclosing the cash, with cost of porterage, will be promptly attended to, by carefully delivering the barrels on board of such conveyance as may be designated. The results on corn and wheat have been generally very satisfactory. Farmers to the south and in the interior, both of this State and of New Jersey, are invited to try it. It is now seasonable for turnips, wheat, &c.

JOSIAH TATUM.

Agency for the Purchase & Sale of IMPROVED BREEDS OF CATTLE & SHEEP.

THE subscriber takes this method of informing his friends and the public, that he will attend to the purchase and sale of the improved breeds of cattle, sheep, &c., for a reasonable commission. All letters post paid, addressed to him at Philadelphia, will be attended to without delay. AARON CLEMENT.

March 15th, 1845.

WELL grown sweet potatoes, from the farm of Mark Clement, Jr., near Woodbury, N. J., were in our market on the 1st inst.

JONATHAN ROBERTS, of this State, and DR. MUSE, of Maryland, will be the principal speakers at the New Castle Agricultural Exhibition, on the 17th and 18th of next month.

☞ SHORT ADVERTISEMENTS, ☜

The subject matter of which, may correspond with the agricultural character of this paper, will be inserted at the rate of one dollar for each insertion of ten lines or less; and so in proportion for each additional line. Payment in advance.

NUMBER 3, of the *Pennsylvania Journal of Prison Discipline*, has been published from this office, where subscriptions are received. It contains, among much other valuable matter, the Menorial presented to our Legislature last winter by D. L. Dix, soliciting the establishment of a State Lunatic Asylum.

THE New York State Agricultural Society will hold its next *Cattle Show* and *Fair* at Utica, on the 16th, 17th, and 18th of next month.

IN a note recently received from Dr. Thomson, of Wilmington, he asks, "Have any of your correspondents informed you, and accounted for it—why so few bees have swarmed this year? It is a general fact—why is it?" We have repeatedly heard the same inquiry made here. The Editor has a couple of healthy swarms—one entering their hive in the bath room, under the window-sash—the other in his yard—neither of them has swarmed this season, nor did they last.

POUDRETTE is a manufactured manure, powerfully stimulating in its properties, and will be found an excellent application to the flower garden, or border, or to pot plants. It should be applied to the top of the soil, and then worked in with the rake or hoe. It is constantly for sale at this office in small quantities:—by the half peck, &c.

DR. ELLWYN informs us that he has made an improvement in the Horse-rake, by attaching a wheel about six inches in diameter to each end of the beam. It works more easily, and answers, as he says, "perfectly." Farmers hardly appreciate this machine. We consider the revolving Horse-rake as one of the greatest improvements offered to the farmer within the last half century. We have followed it many an hour, and contemplated its simplicity and the completeness of its operations with delight.

THE quantity of rain which fell during the Seventh month, 1845, was about two inches and three-quarters. ..... 2.76 inches.

Penn. Hospital, 8th mo. 1st.

According to a writer in the *North American*, who signs himself *Fahrenheit*, the "average temperature of the Seventh month was 75¼°; viz: 68¼° at sunrise—85° at 2 o'clock, and 73° at 6 o'clock in the evening. The maximum temperature was 98° on the 14th, and the minimum was 58¼° on the 1st.—the variation 39¼°. The hottest day was the 14th, the average temperature of which was 85¼°, and the coldest was the 1st; the average of which was 64°. There were twenty-four and a half days clear, and six and a half cloudy. The greatest diurnal variation was 23¼° on the 14th, and the least do. was 12° on the 26th. Rain fell on eleven days, and hail one day. On thirty-one days the thermometer was above 70° at noon; on twenty-three days it was above 80°, and on ten it was between 90° and 100°. The wind blew from the south-west fifteen and a half days, or just half of the whole month; from the north-west two and a half days; west six and a half days; north-east half a day; south-east four and a half days; and east one and a half days."

We keep on hand at this office, and will supply our friends with Agricultural works generally. Among which are

THE FARMER'S ENCYCLOPEDIA, full-bound in leather;—Price	$4 00
YOUATT ON THE HORSE, with J. S. Skinner's very valuable Additions;	2 00
BRIDGEMAN'S GARDENER'S ASSISTANT;	2 00
THE AMERICAN POULTRY BOOK;	37½
THE FARMER'S LAND MEASURER;	37½
DANA'S MUCK MANUAL;	60
Complete sets of the FARMERS' CABINET, half-bound, 9 vols.	7 50
DOWNING'S Landscape Gardening,	3 50
Downing's Fruits and Fruit Trees of America,	1 75
SKINNER'S Every Man his own Farrier,	50
AMERICAN Poulterer's Companion,	1 25
BOUSSINGAULT'S RURAL ECONOMY,	1 50
FARMERS' & EMIGRANTS' HAND-BOOK,	1 00
BEVAN on the HONEY BEE,	31½
BUISTS' ROSE MANUAL,	75
SKINNER'S CATTLE & SHEEP DOCTOR,	50
AMERICAN FARRIER,	50
THE FARMER'S MINE,	75
HANNAM'S Economy of Waste Manures,	25
LIEBIG'S AGRICULTURAL CHEMISTRY,	25
" ANIMAL CHEMISTRY,	25
" FAMILIAR LETTERS,	12½

As well as his larger works on Chemistry and Agriculture,

Subscriptions received for Colman's Agricultural Tour—or single numbers sold.

☞ We are prepared to bind books to order.

Seed Store,

No. 23 Market Street, Philadelphia.

The subscriber keeps constantly a supply of White and Red clover, and other grass seeds. Field seeds, consisting of Spring and Winter Wheats, Potatoe, Oats, Barley, and choice varieties of Seed-corn. Also in season, Fruit and Shade Trees. Garden and Bird seeds generally. Guano in parcels to suit purchasers.

M. S. POWELL.

Philad., March 15th. tf.

COATES' SEED STORE,

No. 49 Market Street.

FRESH TURNIP SEED,

Of the most approved varieties for Cattle and Table use, with a complete Assortment of

GRASS & GARDEN SEEDS,

Of the finest Quality and best Varieties—Bird Seeds, &c. JOS. P. H. COATES,

Successor to George M. Coates.

ENGLISH SHEPHERD DOGS.

A few of these valuable animals of *pure blood*, may now be obtained at $5 each, delivered in Philadelphia. The dam was selected in England last fall, for the present owner, and the pups now o'd enough for delivery, were sired by a thorough-bred Shepherd Dog from the State of New York. Early application to be made—post-paid—at the office of the Farmers' Cabinet, No. 50 N. Fourth street, Philadelphia.

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Terms.—One dollar per annum, or five dollars for seven copies—*payable in advance.*

All subscriptions must commence at the *beginning* of a volume. Having lately struck off a new edition of one or two of the former numbers, which had become exhausted, we are now able to supply, to a limited extent, any of the back volumes. They may be had at one dollar each, in numbers, or one dollar twenty-five cents half-bound and lettered.

For six dollars paid in advance, a *complete set* of the work will be furnished in numbers, including the tenth volume. The whole can thus readily be forwarded by mail. For twenty-five cents additional, per volume, the work may be obtained neatly *half-bound and lettered.* Copies returned to the office of publication, will also be bound upon the same terms.

By the decision of the Post Master General, the "Cabinet," is subject only to newspaper postage. To any Post office within thirty miles of Philadelphia, they will go free of charge.

Joseph Rakestraw, Printer.